

STANDARD BIDDING DOCUMENT



GOVERNMENT OF SINDH SHAHEED MOHTARMA BENAZIR BHUTTO INSTITUTE OF TRAUMA, KARACHI

TENDER NAME:
PROCUREMENT OF MACHINERY & EQUIPMENT
WITH SUPPLY, INSTALLATION, TESTING &
COMMISSIONING

TENDER REFERENCE#
PROC/SMBBIT/(P&M-01)/2022-23

NOTE:

- 1. TENDER FEE: RS. 5,000/-(NON-REFUNDABLE) IN SHAPE OF PAY ORDER IN FAVOR OF SHAHEED MOHTARMA BENAZIR BHUTTO INSTITUTE OF TRAUMA, KARACHI.**
- 2. ALL THE PARTICIPANTS MUST BE SIGNED EACH & EVERY PAGE OF BID DOCUMENTS, ELSE OFFER WILL BE REJECTED.**
- 3. NO TENDER WILL BE ACCEPTED AFTER CLOSING OF THE TENDER BOX, WHAT SO EVER REASON MAY BE.**

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BIDDING DATA SHEET

Procuring Agency	SMBB Institute of Trauma (SMBB-IT)
Address	Chand Bibi Road, Karachi
Name of Tender	Procurement of Machinery & Equipment with Supply, Installation, Testing & Commissioning
Bid Validity	90 Days, as per SPPRA Rule 2010 (Amended till date)
Amount of Bid Security	5% of Total Bid Quoted Price
Amount of Performance Security	10% of Total Contract Price
Last date of Selling of Bid	As per Mentioned in NIT
Date of Submission of Bid	As per Mentioned in NIT
Place of Submission	13 th Floor, Planning and Procurement Department, SMBB Institute of Trauma, Karachi
Venue of Opening of Bid	12 th Floor Seminar Hall SMBB Institute of Trauma, Karachi
Language of Bid	English
Bidding Procedure	Single Stage Two Envelope Procedure 46(2)
Advance Payment	Not Allowed / As per case
Period of Completion	As per ANNEX-C
Liquidity Damages	0.5% of the bid price per month after the period of Completion up to 10% maximum.
Inspection Authority	Nominated Inspection Committee of SMBB Institute of Trauma, Karachi.
Required Item Quality	All items will be procured on approved Specification basis.
Place of Delivery	Store Department of SMBB Institute of Trauma, Karachi.

INSTRUCTIONS TO BIDDERS (I.T.B)

- 1. Shaheed Mohtarma Benazir Bhutto Institute of Trauma** invites sealed bids from Manufacturers/ Importers/ Sole Agents/ Contractors for **Procurement of Machinery & Equipment with Supply, Installation, Testing & Commissioning** at **Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi** Tender Reference No: - **PROC/SMBBIT/(P&M-01)/2022-23.**
- 2. Bidding Procedure Single Stage - Two Envelope Procedure 46(2) as per SPPRA rule amended till date;**
 - i. A Bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal;
 - ii. Envelopes shall be marked as —**FINANCIAL PROPOSAL** and **TECHNICAL PROPOSAL** in bold and legible letters to avoid confusion;
 - iii. Initially, only the envelope marked —**TECHNICAL PROPOSAL** shall be opened;
 - iv. Envelope marked as —**FINANCIAL PROPOSAL** shall be retained in the custody of the procuring agency without being opened;
 - v. Procuring agency shall evaluate the technical proposal in a manner prescribed in advance, without reference to the price and reject any proposal which does not conform to the specified requirements;
 - vi. No amendments in the technical proposal shall be permitted during the technical evaluation;
 - vii. Financial proposals of technically qualified bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance;
 - viii. Financial proposal of bids found technically non-responsive shall be returned un- opened to the respective bidders; and Bid found to be the most advantageous bid shall be accepted.
- 3. Bidders are required to check that Tender Documents issued to them are complete in all respects as per table of content.**
- 4. LANGUAGE OF BID:** The bid prepared by the bidder, as well as all correspondence and documents relating to the bid exchanged by the bidder and the Procuring Agency shall be in English. Supporting documents and printed literature furnished by the bidder may be in another language provided these are accompanied by an accurate translation of the relevant passages in English, in which case for purposes of interpretation of the Bid, the translated version shall prevail.
- 5. Bidders should examine carefully the table of content. They should visit and inspect the site at their own expense and responsibility and obtain all necessary information prior to submitting the tender. Any detail / specification missing in the document should be obtained from Planning & Procurement Department before bidding. Once the tender is submitted, it will be assumed that no further clarification was required.**
- 6. The original bid shall be typed or written in indelible ink by the bidder or person duly authorized. The person or persons signing the bid shall initial all pages of the bid. The name and designation of each person signing must be mentioned below the signature.**

7. No bidder shall be allowed to alter or modify his bid after the bids have been opened. However, the procuring agency may seek and accept clarification to the bids that do not change substances of the bids.
8. The Procuring Agency may reject all bids or proposal at any time prior to the acceptance of a bid or proposal. The Procuring Agency upon request communicate to any supplier or contractor who submitted a bid or proposal, the grounds for its rejection of all bids or proposal, but is not required to justify those grounds.
9. The quoted rates should include all costs of whatsoever description and expenses necessary for the whole work together with all risks, taxes, liabilities and obligations, specific or implied, in the Tender Documents. Arithmetical errors, if any shall be corrected and Tender price amended accordingly.
10. No unauthorized alteration may be made in the Tender documents. If any such alteration is made, tender may be liable for rejection.
11. Clarification, revision, addition or deletion, in the tender documents may be made by the authority before the submission and opening of Tender in the form of Addendum/ Corrigendum. This will be made only by formal Addendum/ Corrigendum issued by the concerned authority and will become part of the contract documents. Each Addendum shall be signed by the Vendor and returned with other Tender documents.
12. The entire Tender Documents, listed duly priced, signed & stamped on each page and completed must reach at designated place in due time and dates as defined in the Bidding Data of the Tender.
13. Contractor who will win the tender will be required to enter into a Contract Agreement as defined in the Form of Agreement.
14. All manufactured and other items should be used in the work in accordance with the instructions, specifications in the Tender Document and also in accordance with generally accepted norms of good workmanship.
15. For the purpose of comparison of bids quoted in different currencies, price shall be converted into Pakistani Rupees. The rate of exchange shall be the selling rate prevailing seven working days before the date of opening of the bids, as notified by the National Bank of Pakistan (NBP) / State Bank of Pakistan (SBP).
16. No bidder shall contact the Procuring agency on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Procuring agency, it should do so in writing.
17. **PROCURING AGENCY'S RIGHT TO VARY QUANTITIES** The Procuring Agency reserves the right to increase or decrease the quantity of stores originally specified in the Price Schedule and Schedule of Requirements without any change in unit price or other terms and conditions.
18. The Procuring agency's evaluation of a bid will take into account, in addition to the bid price

quoted, the following;

- a) Incidental costs
- b) Delivery schedule offered in the bid;
- c) Deviations in payment schedule
- d) The cost of components, mandatory spare parts, and service
- e) The availability of spare parts and after-sales services for the equipment offered in the bid;
- f) The projected operating and maintenance costs during the life of the equipment; the performance and productivity of the equipment offered; and / or other specific criteria indicated in the Bid Data Sheet and / or in the Technical Specifications.

19. CORRUPT OR FRAUDULENT PRACTICES

- a) The Procuring Agency and the Bidders / Manufacturers / Contractors are expected to observe the highest standard of ethics during the procurement and execution of the Contract. In pursuance of this policy, the relevant terms / phrases as may apply are defined below: **“corrupt practice”** means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in Contract execution; and **"fraudulent practice"** means a misrepresentation of facts in order to influence a procurement process or the execution of a Contract to the detriment of the Procuring Agency, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial noncompetitive levels and to deprive the Procuring Agency of the benefits of free and open competition;
- b) The Procuring Agency will take all possible administrative / legal measures if it is found that the Bidder recommended for award was / is engaged in corrupt or fraudulent practice(s) before or after signing of the contract resulting into the conviction of the proprietor under criminal case besides blacklisting of the firm either indefinitely or for such period of time as may be determined by the Procuring Agency.
- c) Will declare a firm ineligible, either indefinitely or for a stated period of time, for the award of a Contract if it, at any time, determines that the firm has engaged in corrupt or fraudulent practices in competing for or in executing a Contract.

SALIENT FEATURES / TERMS & CONDITION OF THE TENDER

1.	Name of Work & Address	:	Procurement of Machinery & Equipment with Supply, Installation, Testing & Commissioning at Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi Reference No: - PROC/SMBBIT/(P&M-01)/2022-23
2.	Place of Issuance of Tender	:	Planning & Procurement Department, 13th Floor SMBB Institute of Trauma, Karachi. SPPRA & smbbit.gos.pk Website
3.	Date of pre-bid meeting	:	As mentioned in NIT
4.	Method of opening of Tender	:	It will be Single Stage Two Envelope 46(2) basis as per SPPRA Rules 2010 (Amended till date).
5.	Venue of submission	:	Planning & Procurement Department situated at 13 th Floor of SMBB Institute of Trauma, Karachi.
a.	Opening of Tenders	:	Seminar Hall situated at 12 th Floor of SMBB Institute of Trauma, Karachi.
6.	Date of Opening of Financial Proposals	:	As informed by Procurement Committee to all participants
7.	Validity of Tenders	:	90 days as per SPPRA Rules, 2010 (Amended till Date).
8.	Amount of Bid Security	:	5% of the Total Quoted amount in shape of pay-order / Demand draft from any schedule bank to be submitted along with Financial Proposal & a copy should be attached in Technical Proposal without showing the Amount (else the offer will be rejected).
9.	Bid Currencies	:	Prices shall be quoted in PKR on Deliver duty paid (D.D.P) basis.
10.	Supply of Equipment	:	As mentioned in Schedule of Requirement Annex-C.
11.	Installation Period	:	It will start after receiving of equipment at site.

12.	Warranty & Maintenance Period	:	Warranty & Maintenance period should be start from the date of Installation report which satisfactorily signed by end user / Biomedical engineer. (This period will remain functional till (mentioned in items individually)).
13. (a)	Contract Agreement	:	The Bidder / Contractor shall enter & execute a formal Agreement as per the "Form" annexed with such modification as may be necessary.
(b)	Stamp Paper / duty requirement for Agreement.	:	Rs. @0.35% of the Contract Value or as prescribed by Government Laws.
14.	Terms of Payment to Contractors.		Goods supplied on D.D.P: i. Payment shall be made in Pak Rupees. ii. The payment will be made to the Bidder within 30 days of the receipt of original delivery challan(s) and invoice(s) in duplicate duly completed in all respect and signed and stamped by the Chairman of the Inspection Committee. The Inspection Committee will prepare and submit a report of physical inspection with a certificate to the effect that the goods conform to the specifications laid down in the bidding documents.
15.	Insurance	:	The goods supplied under the Contract shall be delivered to the Procuring Agency after the payment of all taxes and customs duty, CESS, Octroi charges etc. Risk will be transferred to the Procuring Agency only After the delivery of these goods has been made to the Procuring Agency. Hence, payment of insurance premium, if any, shall be the responsibility of the Bidder.
16.	Release of Bid Security of 5%	:	To un-successful bidders, after work is awarded. Bid Security will be released to successful bidder after purchase order is released but after Security Deposit is deposited as per salient feature Sr.#18.
17.	Security Deposit / Performance Security	:	The successful bidder will have to deposit the requisite Performance security Bond in shape of Bank Guarantee (as per amount mentioned in bidding data sheet) This will be released as per salient feature Sr.#18.
18.	Release of Performance / Security Deposit of 10%	:	<ul style="list-style-type: none"> • 5% of Partial Bank Guarantee will be released after the satisfactory supply and installation of the equipment. (Bidder will furnish Installation Certificate dully signed by authorized representative at the time of release of Bank Guarantee). • 5% of Partial Bank Guarantee will be released after satisfactory completion of warranty / maintenance Period (mentioned in Items individually).

19.	Variation in Contract Price	:	Amount mention in Contract Agreement will prevail till execution and no variation in price shall be allowed on any ground including Currency Fluctuation/ Variation / Devaluation or whatsoever.
20.	Taxes	:	All taxes will be deducted as per prevalent laws of Country.
21.	Approved makes.	:	As mentioned in items individually.
22.	Special Note Regarding Equipment's	:	Technical offers / Commercial offers failing to demonstrate below details would be rejected: a. Quoted system must be of advanced & latest version. b. Tender must cover complete equipment. c. Tender must cover complete range of disposables/ kits d. Tender must provide all technical details up to the satisfaction of the end user. e. Items should be quality approved from the concerned international body of the respective industry.
23.	Inspection of Imported equipment (a) manufacturing site by the client.	:	After the Award of Tender / Contract, Supplier shall take two persons to the manufacturing site and bear all expenses of visit in case the cost of Award of Tender / Contract is above 20Million.
(b)	Training		Supplier will provide on-site successful training to all the personnel working on / operating the said Equipment / Machine as long as the need prevail.
24.	Maintenance.	:	Maintenance cost for all items for Period (mentioned in items individually) from the date of successful Installation shall be undertaken by the Contractor (Maintenance includes all Parts & Labor, etc. with Sufficient staff, during maintenance period).
25.	Default in Preventive Maintenance, Breakdown and Emergency Calls.	:	<ul style="list-style-type: none"> • In case of default by the Contractor with respect to maintenance, break down and emergency calls, the same will be carried out within 24 hours by the Procuring Agency and the cost so incurred will be paid from the Retention Money. • Moreover, an additional 10% of the amount spent would be charged from the concerned contractor being defaulter.
26.	Cost To Be Quoted In B.O.Q.	:	<ul style="list-style-type: none"> • The Contractors shall quote DDP price of the Equipment's including custom clearance etc. and delivering of Equipment at site with Installation & Commissioning cost. • It should also include cost during maintenance period including the parts and maintenance staff.

27.	Tax Exemption.	: Incase Purchase on C&F basis, the required Certificate will be issued by this office that the import has been made for this Institute, so as to avail the facility of exemption of duties / taxes, as per Government Rules / Policy according to the Sindh Public Procurement Rules, 2010 (Amended till date).
28.	Transportation	: The Bidder shall arrange such transportation of the goods as is required to prevent them from damage or deterioration during transit to their final destination as indicated in the Schedule of Requirements. The goods shall be supplied on "D.D.P" Basis at the SMBB Institute of Trauma, Karachi. Miscellaneous charges on logistics, transportation, Insurance, clearing from sea port / airport will also be paid / bear by the contractor(s).
29.	Supply, Installation, Testing & Commissioning	: Means all types works related to civil, furniture, plumbing, electrical, HVAC, UPS or etc. any type of work which is needed related to proper functioning of supplied equipment will completely responsibility of bidder / contractor. Bidder / Contractor shall visit & inspect the site at their own expense and obtain all necessary information prior to submitting the tender. Any detail or information required should be obtained from Planning & Procurement Department before bidding. Once the tender is submitted, it will be assumed that no further clarification was required.

TERMS & CONDITIONS OF TENDER

- a) **Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi** invites sealed bids on **Single Stage Two Envelope Procedure** as per clause 46(2) of Sindh Public Procurement Rules 2010 (Amended till date) from Interested Bidders for **Procurement of Machinery & Equipment with Supply, Installation, Testing & Commissioning at SMBB Institute of Trauma, Karachi.**
- b) Tender Fee in shape of pay order in favor of **SMBB Institute of Trauma, Karachi** must be attached; else the offer will be rejected.
- c) The registered Contractors / Suppliers / Manufacturers / Authorized Distributors should attach **BID SECURITY** (as per amount mentioned under **Bidding Data**) in shape of Bank Draft / Pay order issued from any scheduled Bank of Pakistan in favor of **SMBB Institute of Trauma, Karachi** in the financial proposal. However, copy of same should be attached in technical proposal without showing the amount failing so the offer will be rejected.
- d) **PERFORMANCE SECURITY:** The successful bidders will have to deposit the requisite Performance Security Bond in the shape of a Bank Guarantee in favor of **SMBB Institute of Trauma, Karachi** (as per mentioned in salient features of this bidding document point # 17). The same will be released after successful completion of contract period as per point# 18 of salient features.
- e) Bid should be dropped at Planning & Procurement Office, **13th Floor, SMBB Institute of Trauma, Karachi** by hand in due course of time and the same will be opened at Seminar Hall, **12th Floor, SMBB Institute of Trauma, Karachi.**
- f) Bid / offer will be evaluated as per (**Technical Evaluation Criteria** Mandatory as **Annex-A** and (**Technical Evaluation Criteria** Marking as **Annex-B**) and also the bid's Terms & Conditions.
- g) Bid should be inclusive of all Government taxes (if applicable) and the same will be paid by the Contractor except withholding tax.
- h) The firm will be responsible for all supply of all awarded items to Store Department of SMBB Institute of Trauma, Karachi. If it fails, the Security Deposit will be forfeited.
- i) Procuring Agency shall disqualify a contractor, whether pre-qualified or not, if it finds at any time, that the information submitted by him concerning his qualification and professional, technical, financial, legal, or managerial competence as contractor was false and materially inaccurate or incomplete at any stage.

- j) The bid security will be forfeited to the Government, if the bidder withdraws his bid after opening and before the expiry of the bid validity period or fails to sign the contract in stipulated time if the bid is accepted.
- k) Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If the Supplier does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail.
- l) If bidder elects to submit alternate bid / proposal(s), the Bid Security shall be attached for higher bid amount; otherwise, both proposals / bids will be rejected.
- m) The Procuring Agency may reject all or any bid at any time prior to the acceptance of a bid or proposals, subject to the relevant provision of SPP Rules, 2010 (Amended till date).
- n) Bids shall remain valid for 90 days after the date of bid opening and same may be extended in terms of Rule 38 (2) (3) (4) of SPPRA Rules.
- o) No tender will be entertained without Security deposit. The Security deposit will be forfeited, in case of non-submission of Performance security within seven (7) days of receipt of letter of Acceptance.
- p) Bids submitted late due to any reason what so ever, shall not be considered and returned unopened to the bidder or his authorized representative.
- q) If the supplier fails to give supply and install within the stipulated period, liquidity charges will be imposed (**as per amount mentioned in bidding data sheet**).
- r) If the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in Bidding Data of the delivered price of the delayed Goods or unperformed Services for each week or part thereof delay until actual delivery or performance, up to a maximum deduction of the percentage specified in Bidding Data. Once the maximum is reached, the Procuring agency may consider termination of the Contract.
- s) The quoted rates should be valid till **30th June 2023**; Orders will be placed as per requirement on receiving demand from the concern department of Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi.

- t) The bidders shall quote their full and final price both in figure and in words on free delivery basis to Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi.
- u) Distributor once nominated by the manufacturer / importer will be for the whole contract period and manufacturer / importer cannot change its distributor during the contract period in any case.
- v) The Procuring agency reserves the right at the time of contract award to increase / decrease & delete, the items / quantities of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
- w) 20% of the General Sales Tax will be deducted from the bill of the Contractors / Suppliers while remaining 80% will be deposited by the Contractors / Suppliers themselves.
- x) Quantities of tender items are on estimated basis and could vary according to the amount sanctioned, released and as per discretion of Procurement Committee.

I / We agree to above mentioned Terms & Conditions:

Name of Contractor: _____ Signature: _____

CNIC#. (Copy must be attached): _____

Full Address: _____

Company Stamp: _____

GENERAL CONDITIONS OF CONTRACT (G.C.C)

1. **Definition:** In this Contract, the following terms shall be interpreted as indicated:
 - a) **"The Contract"** means the agreement entered into between the Procuring Agency and the Bidder, as recorded in the Contract Form signed by the Parties, including all attachments and appendices thereto and all documents incorporated by reference therein
 - b) **"The Contract Price"** means the price payable to the Bidder under the Contract for the full and proper performance of its Contractual obligations.
 - c) **Goods** means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Procuring Agency under the Contract.
 - d) **Related Services** means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance, printing of special instructions on the label and packing, design and logo of the Procuring Agency, transportation of goods up to the desired destinations and other such obligations of the Bidder covered under the Contract.
 - e) **"GCC"** mean the General Conditions of Contract contained in this section.
 - f) **"SCC"** means the Special Conditions of Contract.
 - g) **"The Procuring Agency"** means the Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi.
 - h) **"The Bidder"** means the individual or firm supplying the goods under this Contract.
 - i) **"Day"** means official working day excluding national holidays.
2. **APPLICATION:** These General Conditions shall apply to the extent that they are not inconsistent with provisions of other parts of the Contract.
3. **STANDARDS:** The goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications goods eligibility criteria.
4. **USE OF CONTRACT DOCUMENTS AND INFORMATION:**
 - a) The Bidder shall not without the Procuring Agency's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern; sample, or information furnished by or on behalf of the Procuring Agency in connection there with, to any person other than a person employed by the Bidder in the performance of the Contract. Disclosure to such employed person shall be made in confidence and shall extend only, as far as may be' necessary, to such performance and not further or otherwise.
 - b) Any document, other than the Contract itself, shall remain the property of the Procuring Agency and shall be returned (all copies) on completion of the Bidder's performance under the Contract.
 - c) The Bidder shall permit the Procuring Agency to inspect the Bidder's accounts and records relating to the performance of the Supplies.
5. **PATENT RIGHTS:** The Bidder shall indemnify the Procuring Agency against all third- party claims of infringement of patent, trademark, or industrial design rights arising from use of the

Goods or any part thereof in the country.

6. **ENSURING STORAGE ARRANGEMENTS:** To ensure storage arrangements for the intended supplies, the Bidder shall inform the Procuring Agency at least two weeks prior to the arrival of the consignments at its store/warehouse. However, in case no space is available at its store/warehouse at the time of supply, the Procuring Agency shall, seven days prior to such a situation, inform the Bidder, in writing, of the possible time-frame of availability of space by which the supplies could be made. In case the Bidder abides by the given time frame, he will not be penalized for delay.
7. **INSPECTIONS, TESTS AND TRAINING:**
 - a) The Procuring Agency or its representative shall have the right to inspect and/or test the goods to confirm their conformity to the Contract specifications at the cost payable by the Bidder.
 - b) The Procuring Agency's right to inspect, test and, where necessary, reject the goods either at Bidder's premises or upon arrival at Procuring Agency's destinations shall in no way be limited or waived by reasons of the goods having previously been inspected, tested, and approved by the Procuring Agency or its representative prior to the goods shipment from the manufacturing point.
 - c) Bidder shall provide the training to the designated staff of the SMBB Institute of Trauma, Karachi for the smooth operation of the equipment / instruments. Training plan should be attached with the offer.
8. **DELIVERY AND DOCUMENTS:** The Bidder shall in accordance with the terms specified in the Schedule of Requirements make delivery of the goods.
9. **INSURANCE:** The goods supplied under the Contract shall be delivered to the Procuring Agency after the payment of all taxes and customs duty, cess, octroi charges etc. Risk will be transferred to the Procuring Agency only after the delivery of these goods has been made to the Procuring Agency. Hence, payment of insurance premium, if any, shall be the responsibility of the Bidder.
10. **TRANSPORTATION:**
 - a) The Bidder shall arrange such transportation of the goods as is required to prevent them from damage or deterioration during transit to their final destination as indicated in the Schedule of Requirements.
 - b) The goods shall be supplied on “D.D.P” Basis at SMBB Institute of Trauma, Karachi Store Department as per Schedule of Requirements on the risk and cost of the Bidder. Transportation including loading / unloading of goods shall be the responsibility of Bidder.
11. **INCIDENTAL SERVICES:** The Bidder will be required to provide to the Procuring Agency incidental services the cost of which should be included in the total bid price.
12. **WARRANTY / GUARANTEE:**
 - a) **The term period of warranty / guarantee (mentioned in items specification individually)** from the date on which the Stores have been put into operation and demonstrated to the Institute staff. In any case this period shall not exceed six months beyond the warranty expiration period from the date of taking-over of goods.

- b) During the period of warranty / guarantee, the Contractor shall remedy, at his / her expense, all defects in design, materials, and workmanship that may develop or are revealed under normal use of the goods upon receiving written notice from the Institute; the notice shall indicate in what respect the goods are faulty.
 - c) The provisions of this Clause include all the expenses that the Contractor may have to incur for delivery and installation of such replacement parts, material and equipment as are needed for satisfactory operation of the goods at the SMBB Institute of Trauma, Karachi premises.
 - d) The contractor shall provide warranty / guarantee for supply of Machinery / Equipment etc. for at least 05 years (where applicable).
 - e) **The bidder shall separately quote the price of service contract inclusive of parts as well as excluding the parts for 5 years (post warranty / guarantee period) in term of %age for total contract value.**
 - f) In case of consumable items, kits, chemicals, films etc. the contractor shall remain responsible for specificity, efficacy & sensitivity with maximum period of expiry as much allowed by manufacturer.
 - g) The Procuring Agency shall promptly notify the Bidder in writing of any claims arising out of this warranty.
- 13. PAYMENT:** The method and conditions of payment to be made to the Bidder under the Contract are specified in **Salient Feature point # 14.**
- 14. ASSIGNMENT:** The Bidder shall not assign, in whole or in part, its obligations to perform to another party under this Contract, except with the Procuring Agency's prior written consent.
- 15. DELAYS IN THE BIDDER'S PERFORMANCE:** Delivery of the goods shall be made by the Bidder in accordance with the time schedule prescribed by the Procuring Agency in the Schedule of Requirements
- a) If at any time in the course of performance of the Contract, the Bidder encounters anything impeding timely delivery of the goods, he shall promptly notify the Procuring Agency in writing of the causes of delay and its likely duration. As soon as practicable, after receipt of the Bidder's notice, the Procuring Agency shall evaluate the situation and may, depending on merits of the situation, extend the Bidder's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the Parties by a supplementary Contract to be treated as an addendum to the original contract.
 - b) Any undue delay by the Bidder in the performance of its delivery obligations shall render it liable to the imposition of liquidated damages.
- 16. PENALTIES / LIQUIDATED DAMAGES:** In case deliveries are not completed within the time frame specified in the schedule of requirements / contract, a Show Cause Notice will be served on the Bidder which will be following by cancellation of the Contract to the extent of non - delivered portion of installments. No supplies will be accepted and the amount of Performance Guarantee / Security to the extent of non-delivered portion of supplies of relevant installments will be forfeited. If the firm fails to supply the whole installments, the entire amount of Performance Guarantee/Security will be forfeited to the Government Account and

the firm will be blacklisted at least for two years for future participation in bids: The liquidated damage shall be 0.5 % per month or part thereof. The maximum amount of liquidated damages shall be 10% of the amount of contract. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of the contract, the Procuring Agency shall rescind the contract, without prejudice to other courses of action and remedies open to it.

17. TERMINATION FOR DEFAULT: The Procuring Agency may, without prejudice to any other remedy for breach of Contract, by a written notice of default sent to the Bidder, terminate this Contract in whole or in part if:

- a) the Bidder fails to deliver any or all installments of the goods within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring Agency;
- b) the Bidder fails to perform any other obligation(s) under the Contract to the satisfaction of the Procuring Agency; and
- c) The Bidder, in the judgment of the Procuring Agency, has engaged itself in corrupt or fraudulent practices before or after executing the Contract.

18. FORCE MAJEURE: The Bidder shall not be liable for forfeiture of its Performance Guaranty/ Bid Security, or termination / blacklisting for default if and to the extent that this delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. For the purposes of this Clause Force Majeure means an act of God or an event beyond the control of the Bidder and not involving the Bidder's fault or negligence directly or indirectly purporting to mal-planning, mismanagement and /or lack of foresight to handle the situation. Such events may include but are not restricted to acts of the Procuring Agency in its sovereign capacity, wars or revolutions, fires, floods, earthquakes, strikes, epidemics, quarantine restrictions and freight embargoes. If a Force Majeure situation arises, the Bidder shall promptly notify the Procuring Agency in writing with sufficient and valid evidence of such condition and the cause thereof. The Committee, constituted for redressing grievances, will examine the pros and cons of the case and all reasonable alternative means for completion of purchase order under the Contract and will submit its recommendations to the competent authority. However, unless otherwise directed by the Procuring Agency in writing, the Bidder shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek reasonable' alternative means for performance not prevented by the Force Majeure event.

19. TERMINATION FOR INSOLVENCY: The Procuring Agency may at any time terminate the Contract by giving written notice of one-month time to the Bidder if the Bidder becomes bankrupt or otherwise insolvent. In that event, termination will be without compensation to the Bidder, provided that such termination will not prejudice or affect any right or remedy which has accrued or will accrue thereafter to the Parties.

20. ARBITRATION AND RESOLUTION OF DISPUTES:

- a) The Procuring Agency and the Bidder shall make every effort to resolve amicably by direct informal negotiations any disagreement or dispute arising between them under or in connection with the Contract.
- b) If, after thirty (30) days from the commencement of such informal negotiations, the

Procuring Agency and the Bidder have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred to the Arbitrator for resolution through arbitration.

- c) In case of any dispute concerning the interpretation and/or application of this Contract is to be settled through arbitration, the arbitrator to be appointed with the approval of the Institute's BOG. The decisions taken and/or award given by the sole arbitrator shall be final and binding on the Parties.

21. PACKING:

- a) The Bidder shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- b) The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements.

22. GOVERNING LANGUAGE: The Contract shall be written in English language. All correspondence and other documents pertaining to the Contract, which are exchanged by the Parties, shall be written in English.

23. APPLICABLE LAW: This Contract shall be governed by the laws of Pakistan and the courts of Karachi - Pakistan shall have exclusive jurisdiction.

24. Bidder offering radiology equipment failing under compliance with Pakistan Nuclear Regulatory Authority (**PNRA**) should be registered with the authority to install and commission. All expense / fees for **PNRA** for clearance of X-ray based equipment shall be borne by the supplier (where applicable).

I / We agree to above mentioned General condition of Contract (GCC):

Name of Contractor: _____ Signature: _____

CNIC#. (Copy must be attached): _____

Full Address: _____

Company Stamp: _____

(ANNEX-A)

TECHNICAL EVALUATION CRITERIA (MANDATORY)

(Bidders are required to submit following documents in mentioned sequence with Proper Tagging)

S.#	MANDATORY REQUIREMENTS	YES	NO
1.	Compliance of Terms & Conditions / Instructions mentioned in the SBD, must submit the entire STANDARD BIDDING DOCUMENTS , duly signed & stamped on each page with Technical Proposal. 1. Attached authorized person CNIC copy. 2. Signed & stamped each and every page of Terms & Condition & all bidding documents. (If above points compliance not found offer will be rejected).		
2.	Should be registered with Income Tax Department (Valid / Active NTN Certificate must be attached).		
3.	DRAP license showing importer of medical devices. (Where applicable)		
4.	Copy of Professional Tax 2022-23 (Attach Copy of Valid Certificate)		
5.	Copy of Registration Certificate of General Sales Tax. (Attach Copy of Valid Certificate).		
6.	PNRA Registration Certificate (Where Applicable)		
7.	Valid Copy of 2021-22 Financial year paid Income tax and return		
8.	Audited Financial Statement (Last 3 Years)		
9.	Recent Bank Account Maintenance Certificate.		
10.	Submission of undertaking on legal valid and attested stamp paper that the firm is not blacklisted and litigated by any institute of Federal, Provincial Government or any Department / Agency / Organization / Autonomous body or Private Sector Organization anywhere in Pakistan (Undertaking should be as attached sample as per Table of Content Point # 16) (ANNEX-F)		
11.	Bidder already providing services at SMBB-IT, Karachi should obtain & attach a satisfactory performance certificate from competent authority of SMBB Institute of Trauma, Karachi (for the financial year in which the bidder last provided its services).		
12.	Copy of Pay order / Bank Draft of Bid security should be attached along With bidding document in Technical Proposal without showing the amount.		
13.	Soft Copy (USB) containing all documents and forms (In Excel / DOC format Only) (Soft copy in a CD or DVD is not acceptable.)		

Note:

Bidders NOT complying with any of the above eligibility mandatory requirement would be disqualified. All documentary evidence must be submitted along with the bids; no document will be acceptable after bid submission.

BID EVALUATION CRITERIA

- a. **THE BIDS SHALL BE EVALUATED ON MOST ADVANTAGEOUS BID BASIS** SPPRA Rule-2(x) amended till date.
- b. The bids which are not responsive to the **MANDATORY QUALIFICATION CRITERIA** provided at **Annexure-A** shall not be eligible for further Technical Evaluation.
- c. If a bidder elects to submit alternative bid without enclosing a separate tender purchased slip / pay order and Bid security of requisite amount in shape of pay order, bid form and valid Manufacturer Authorization, all such alternative bids will be rejected as non-responsive.
- d. The bids shall be evaluated and compared on **ITEMIZED BASIS** exclusively. Technical evaluation of the products will be assessed on the standards / specifications given at **ANNEXURE - E**.
- e. **Bids are invited as per Single Stage – Two Envelope Procedure** in accordance with sub rule 2 of rule 46 of the Sindh Public Procurement Rules, 2010 (Amended till Date). In case, any bidder encloses the financial bid within the technical bid, the same shall be rejected summarily.
- f. The following merit point system for weighing evaluation factors / criteria will be applied for technical bids / proposals. Bidders achieving **minimum 70% marks** will be qualified and considered only for further process / evaluation besides compliance of all mandatory clauses. Documentary evidence must be attached in support of your claim.
- g. Technically qualified/successful bidder(s) shall be eligible for Financial Proposal(s). The Financial bids shall be opened in the presence of the Bidders at the scheduled date, time and venue communicated in advance.
- h. Financial Bids of Proposals of Technically disqualified / rejected bidders will not be opened for financial bid and sealed envelope shall be returned to the bidder.
- i. Bids not accompanied by the Bid Security of required amount in the form of pay order shall be rejected.
- j. The technical evaluation carried out by the Procurement Committee, SMBB Institute of Trauma, Karachi will be final, which will be assessed on experience basis of the Consultant(s) in the relevant specialty.
- k. Procuring Agency shall not be responsible for any erroneous calculation of taxes and all differences arising out shall be fully borne by the Successful Bidder.
- l. Marks obtained in the detailed technical evaluation will be carried forward and prorated. Tender will be awarded to the Responding Organization with maximum accumulative points (**Technical Score + Financial Score**).
- m. The formula for technical scoring is “**Technical Marks / Score = Total Technical Marks of the respective bidder x 0.7**”.

- n. The formula for financial scoring is that the lowest bidder gets 30% Marks and the other bidders score 30 multiplied by the ratio of the lowest bid divided by the quoted price.

Total Allocable marks for Technical Proposal = 70

Total Allocable marks in Financial Proposal = 30

Total Combined Allocable Score for individual bids = Marks obtained in Technical Evaluation + Marks obtained in Financial Evaluation = 100

EXAMPLE:

TECHNICAL EVALUATION

The formula to calculate the technical points / marks / score of the bidder is given below:

Technical Marks / Score = Total Technical Marks of respective bidder x 0.7

• **Solved Example of Financial Scoring:**

Technical scoring out of 100 = 85

Carried Forward & Prorated Technical scoring = 85 x 0.70

FINANCIAL EVALUATION

The formula to calculate the Marks for the price by the bidders other than lowest bidder is given below:

• **Financial Evaluation Score of individual quoted Product:**

= [Lowest quoted price of the item ÷ Next higher proposed price of the competing item] x Total Allocable financial score

• **Solved Example of Financial Scoring:**

If the lowest quoted price of an item is Rs. 86/- the same lowest will obtain score as below:

$$= [86 \div 86] \times 30 = 30$$

= 30 marks being the lowest bidder for the quoted item

If the next higher quoted price of the same item is Rs. 105/- the marks obtained will be:

$$= [86 \div 105] \times 30 = 24.57$$

If the next higher quoted price of the same items is Rs. 130/- the marks obtained will be:

$$= [86 \div 130] \times 30 = 19.84 \text{ Marks and so on}$$

TECHNICAL EVALUATION CRITERIA (MARKING)

Quality and the following evaluation factors/ criteria will be employed on technical proposals. The number of points allocated to each factor shall be specified in the Evaluation Report. **Only bids securing minimum of 70% marks would be considered for further process.**

S#	PARAMETERS / SUB-PARAMETERS	Marks for Evaluation	Total Marks
1	Conformity to the Purchaser's Specifications (Mandatory)		40
1.1	Fully compliant with the required tender specifications (Product demonstration, previous technical / support experience of the product / firm may also be considered for technical evaluation)	40	
1.2	Compliant with minor deviation (up to 10 % subject to main function is not affected)	30	
1.3	Above 10% / Non-compliant to required specifications.	Disqualify	
2	Trained Product specialist		10
2.1	Two marks for each Foreign Trained Graduate Engineer with PEC Registration in Sindh for the quoted product (Factory / OEM level service training) (Attached Proof of travel document and training certificate, online training is not acceptable)	6	
2.2	Two marks for each Foreign Trained Science Graduate in Sindh for the quoted product (OEM level Service training) (Attached Proof of travel document and training certificate, online training is not acceptable)	4	
3	Manufacturer's Authorization		10
3.1	Participating Firm is OEM direct representative (not agent / distributor) and has registered branch / Liaison office in Pakistan or the Sole distributor for more than 10 years. (Authorization certificate attested by embassy must be provided)	10	
3.2	Sole Authorized Distributor in Pakistan for last 5 Years (Authorization certificate attested by embassy must be provided)	8	
3.3	Sole Authorized Distributor for complete modality in Sindh / Pakistan for last 3 Years or the validity of authorization since issuance is of 3 years (Authorization certificate attested by embassy must be provided)	5	
3.4	Sole Authorized Distributor for limited product in Sindh / Pakistan for below 3 Years or the validity of authorization since issuance is of below 3 years.	0	
4	Human Resource (Technical Staff)		6
4.1	Graduate Engineer with PEC Registration in biomedical, electronics, and mechatronics, mechanical, industrial. PEC registration card of the engineer must be submitted. (1 mark for each Engineer)	4	
4.2	Diploma of Associate Engineer (DAE) in electrical / electronic / biomedical / mechatronics / mechanical / industrial. DAE certificate must be submitted. (0.5 mark for each certificate)	2	

S#	PARAMETERS / SUB-PARAMETERS	Marks for Evaluation	Total Marks
5	Networking		4
5.1	Networking setup across Pakistan (1 mark for each setup) (Proof of Registered office must be provided)	4	
6	Experience/ Performance		10
6.1	Product Relevant Experience / Product Previous Satisfactory Performance certificate of at least 03 public hospitals having minimum 5 years' Experience along with Installation Report and Supply order / Purchase Order of the firm in last 5 years, on letter head, signed and stamped by the Head of institution / Concern Officer of public sector. One mark for each after sale satisfactory performance certificate.	5	
6.2	Product Relevant Experience / Product Previous Satisfactory Performance certificate of at least 03 reputable private tertiary care level hospitals having minimum 5 years' Experience along with Installation Report and Supply order/ Purchase Order of the firm in last 5 years, on letter head, signed and stamped by the Head of institution / Concern Officer of private sector. One mark for each after sale satisfactory performance certificate.	5	
7	Annual Turnover during last three (03) financial years (Audited Statements of Accounts and Income Tax Return Forms must be attached as supporting documents)		10
7.1	Turn over above PKR 1 Billion	10	
7.2	Turn over above PKR 500 million	7	
7.3	Turn over above PKR 150 million	5	
7.4	Turn over above PKR 50 million	3	
7.5	Turn over below PKR 50 million	0	
8	Bonus points (Free of Cost Extended Warranty) (In accordance with the comprehensive warranty period including all parts).		10
8.1	Free of Cost Extended Warranty for Two Years.	10	
8.2	Free of Cost Extended Warranty Period for One year	5	
	GRAND TOTAL		100

SCHEDULE OF REQUIREMENT
PROCUREMENT OF PLANT & MACHINERY (SUPPLY,
INSTALLATION, TESTING & COMMISSIONING OF
PLANT & MACHINERY)

A. GOODS SUPPLIED ON (DDP BASIS)

The entire quantity of the ordered goods shall be delivered within **12 Weeks** or earlier from the date of issuance of supply order / contract award. **(16 weeks above period supply not acceptable and the offer will be rejected).**

- i. The delivery period shall start from the date of Award of Contract / Contract Agreement.

SPECIAL NOTE

1. Offered product's specifications sheet on company's letter head must be attached.
2. Item-wise / Feature-wise product compliance / deviation statement must be attached.
3. **Confirm delivery period must be specified.**
4. Port of Shipment and Country of origin of **"MAJOR PART(S) OF THE EQUIPMENT"** must be clearly reflected separately in the Technical and Financial bids. The Origin means the place where the —goods are mined, grown, or produced.
5. Product specifications are only for widest possible competition and not to favor any single contractor or supplier nor put others at a disadvantage. However, the brand name, catalogue # / Name etc., if any, have only been used for the reference purpose. Equipment offered **"ATLEAST EQUIVALENT OR HAVING BETTER SPECIFICATIONS"** shall also be considered.
6. Equipment must be quoted with all the standard accessories, required for the operation of the equipment.
7. Quoted equipment should be of latest Model.
8. **UPS / Power protection for the equipment shall be incorporated in the systems and also included in bid amount (where applicable).**
9. **All the civil works and allied services will be carried-out by the bidder with the consultation of the Procuring Agency (if required) cost of all types of works included in bid amount.**
10. **All site-specific work to be required in the system viz. Lead Glass / special antistatic flooring, environment control / radiation protection must be included bidder quote (where applicable).**
11. The bidder shall separately quote the price of service contract inclusive of parts as well as excluding the parts for 5 years (post warranty / guarantee period) in term of %age for total contract value (mandatory).

I / We agree to above mentioned all clauses;

Name of Contractor: _____ Signature: _____

CNIC#. (Copy must be attached): _____

Full Address: _____

Company Stamp: _____

**PROCUREMENT OF PLANT & MACHINERY
(SUPPLY, INSTALLATION, TESTING &
COMMISSIONING)
PRICE SCHEDULE FOR SMBB INSTITUTE OF TRAUMA,
KARACHI.
DURING THE FINANCIAL YEAR 2022-23**

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
01.	<p>OPERATION THEATER LIGHT DUAL DOME: Specifications:</p> <ol style="list-style-type: none">1. Unit should have Clarity of vision, optimum performance2. Unit should have Concentrated light source3. Unit should have Patented, proven reflector technology4. Unit should have No color deterioration5. Unit should have Cool light6. Unit should be User-friendly7. Unit should have Optimum hygiene8. Unit should have Ultra-reliable lighting9. Unit should have Safety glass for best possible clarity.10. Unit Should have Sterilize-able and Remove-able Handles11. Unit Should have dust protection12. Should have light intensity of main light 160,000 lux13. Should have light intensity of satellite light 160,000 lux14. Should have Color temperature adjustment 3500 - 5500 Kelvin15. Should have Electric field adjustment.16. Should have Focusable light field size d10 at 1m of light should be 180 mm -300 mm or better17. Should have Temperature increase at head height < 1 °c18. Should have color rendering index to 99 Ra or above.19. Life time of LED should be 50,000 hours or more.20. Dome should be adjustable upper side maximum 7 Feet or more and lower side minimum 4 Feet or more.21. Based on room size and can customize the configuration.22. System should be compatible with Laminar Flow System <p>Power Requirement:</p> <ol style="list-style-type: none">1. Line voltages: 100-240VAC2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <ol style="list-style-type: none">1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none">1. Warranty Period required 3 years with maintenance and parts replacement.	04

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>2 All the parts are included in the warranty. (LED, Keypad and all others parts are included)</p> <p>3 PPM must be done according to the OEM criteria in warranty period.</p> <p>4 Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M.</p> <p>5 Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M.</p> <p>6 Up-time guarantee during warranty period must be 90-95%.</p> <p>7 Response to breakdown during and after warranty period must be 1-3Hours.</p> <p>8 Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <p>1 Operating and service manual with troubleshooting and circuit diagram must be provided.</p> <p>2 In house operator training session for end user.</p> <p>3 In house service training session by Principal Certified resource</p> <p>4 Trained Service Engineers with certification from the principle, Karachi based mandatory.</p> <p>Note:</p> <p>1. Safely installation of new OT light and dismantling of old installed OT light should be responsibility of awarded firm/supplier.</p> <p>Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) are the responsibility of awarded firm/supplier).</p> <p>COUNTRY OF ORIGIN: UK / USA / EUROPE / JAPAN OR EQUIVALENT</p>	
02.	<p>HD VIDEO THERAPEUTIC BRONCHOSCOPE (Compatible with existing camera system)</p> <p>1 Autoclavable HD Video Therapeutic Bronchoscope with integrated LED light source Qty. 01</p> <p>2 Distal tip outer diameter 6.5 mm or better</p> <p>3 Working channel diameter 2.6-2.8 or better</p> <p>4 Deflection 180°/140° or better</p> <p>5 Direction of view 0° or better</p> <p>6 Angle of view 100° or better</p>	01

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>7. Depth of view 3 – 50 mm or better</p> <p>8. Working length 58-60 cm or better</p> <p>Consisting of:</p> <p>9. Case</p> <p>10. Pressure Compensation Cap</p> <p>11. Suction Valve</p> <p>12. Leaflet Valve</p> <p>13. Leakage Tester</p> <p>14. Cleaning Brush, with double- sided brush</p> <p>15. Irrigation Adaptor</p> <p>16. LUER-Lock Tube Connector</p> <p>17. Cleaning Brush for Instruments</p> <p>18. Protective Film</p> <p>19. Bite Protector</p> <p>Autoclavable flexible video bronchoscope (optional must be quoted)</p> <p>1. Flexible Intubation Video Endoscope 4 x 65, Set, CMOS technology, with suction valve</p> <p>2. Deflection up/down: 140°/140°</p> <p>3. Direction of view: 0°</p> <p>4. Angle of view: 100°</p> <p>5. Working length: 64-66 cm</p> <p>6. Total length: 92-94 cm</p> <p>7. Working channel inner diameter: 1.4-1.6 mm</p> <p>8. Distal tip outer diameter: 3-4 mm,</p> <p>Consisting Of:</p> <p>9. Flexible Intubation Video Endoscope 4 x 65</p> <p>10. Leakage Tester</p> <p>11. Tube Holder</p> <p>12. Irrigation Adaptor</p> <p>13. Suction Valve</p> <p>14. Bronchoscope Insertion Tube, size 4</p> <p>15. Bronchoscope Insertion Tube, size 2</p> <p>16. Plug, black</p> <p>17. Protection Cap</p> <p>1. Grasping Forceps Type Alligator, with ribbing, diameter 2.2-2.4 mm, working length 155-160 cm, for use with flexible endoscopes with working channels as of diameter 2.6-2.8 mm Qty. 01</p> <p>2. Grasping Forceps Type Rat Tooth with Alligator Jaws, diameter 2.2-2.4 mm, working length 155-160 cm, for use with flexible endoscopes with working channels as of diameter 2.6-2.8 mm Qty. 01</p> <p>3. Biopsy Forceps Type Alligator, coated, diameter 2.2-2.4 mm, working length 155-160 cm, for use with flexible endoscopes with working channels as of diameter 2.6-2.8 mm Qty. 01</p> <p>4. Stone Basket, Nitinol, without tip, diameter 2.2-2.4 mm, opening width 18-22 mm, working length 165-170 cm, for use with flexible endoscopes with working channels as of diameter 2.6-2.8 mm Qty. 01</p> <p>5. Cytology Brush, diameter 1.6-1.8 mm, working length 110-120 cm, for use with flexible endoscopes with working channels as of diameter 1.8-2.0 mm Qty. 01</p>	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>6. Leaflet Valve Qty. 01</p> <p>7. Suction Valve Qty. 01</p> <p>8. Bite Protector, with elastic band Qty. 01</p> <p>9. Irrigation Adaptor, for machine cleaning, reusable, for use with Video Bronchoscopes Qty. 01</p> <p>10. Cleaning Brush, with double-sided brush, length 110-120 cm, brush diameter 3-4 mm, for use with flexible endoscopes with working channels ranging from diameter 2.5 - 4.0 mm Qty. 01</p> <p>11. Plastic Container for Flexible Endoscopes, suitable for gas and hydrogen peroxide sterilization and storage for use with a flexible endoscope Qty. 01</p> <p>12. Full HD Camera System for both Flexible & Rigid endoscopy. Qty. 01</p> <p>13. Camera System (CCU & Camera head) should be 1920 x 1080p with 2 camera inputs for Flexible video endoscope connection and rigid camera system as well</p> <p>14. The system must comprise of following Full HD 1080p or better Video Processor CCU with integrated documentation functions for image and video capturing with CMOS FULL HD camera Heads with following technical data or Better or Equivalent</p> <ul style="list-style-type: none"> • Connections: - 1 x DVI-D • Max. Resolution: - 1920 x 1080p or better • USB membrane Keyboard with Touch pad • Should have internal Storage of 50 GB or more • Special Features: • Should be compatible with multiple camera heads, multiple connectors for different • Camera heads present. • Still image capturing in Full HD (JPEG) Format via camera head buttons • Video Capturing in Full HD Quality (MPEG4 Format) via Camera head buttons <p>Demonstration:</p> <p>1. Quoted model demonstration is mandatory in technical approval is subject to satisfactory demonstration.</p> <p>Power Requirement:</p> <p>1. Line voltages: 100-240VAC</p> <p>2. Line Frequency: 50/60 Hz</p> <p>Requirement:</p> <p>Certification:</p> <p>1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO</p> <p>Warranty and Maintenance Period:</p> <p>1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty.</p> <p>2. PPM must be done according to the OEM criteria in warranty period.</p> <p>3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M.</p> <p>4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M.</p> <p>5. Up-time guarantee during warranty period must be 90-95%.</p> <p>6. Response to breakdown during and after warranty period must be 1-3Hours.</p> <p>7. Down Time: If equipment is malfunctioning or not working properly then</p>	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below;</p> <p>90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: JAPAN / EUROPE / UK / USA OR EQUIVALENT</p>	
03.	<p>ULTRASONIC CLEANER</p> <p>Key Features:</p> <ol style="list-style-type: none"> 1. Electronic time and temperature control, up to 80 °C 2. High performance transducer system 3. Auto start temperature controlled / temperature pre-selection <p>Specification:</p> <ol style="list-style-type: none"> 1. Tank Volume Capacity = 18 Liter or more 2. Ultrasonic Frequency = 35 KHZ or more 3. Ultrasonic Peak Performance = 800 Watt or better <p>Constructive Material of Tank:</p> <ol style="list-style-type: none"> 1. Stainless Steel AISI304 <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <ol style="list-style-type: none"> 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 	02

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>5. Up-time guarantee during warranty period must be 90-95%.</p> <p>6. Response to breakdown during and after warranty period must be 1-3Hours.</p> <p>7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below;</p> <p>90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided with technical proposal. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier. COUNTRY OF ORIGIN: JAPAN / EUROPE / UK / USA OR EQUIVALENT</p>	
04.	<p>ANESTHESIA MACHINE WITH VENTILATOR</p> <p>Technical Specification</p> <ol style="list-style-type: none"> 1. Gas Supply: Pipeline input pressure: 3 to 6 bar supply required; Connections: for O₂, N₂O, Air and Vacuum. 2. Non-interchangeable gas supply pipeline inlets. 3. Pin index cylinder yokes for O₂ and N₂O one each or more. 4. Stainless steel/fiber work surface. 5. Central Gas / Electronically driven unit. 6. Continual fresh gas flow with fresh gas flow compensation during mechanical ventilation. 7. Should be low flow 8. Auxiliary O₂ Outlet one or more. 9. Two lockable castors 10. Absorber bag support arm 11. Oxygen flush 30 l/min or more 12. Should have built in suction operating on vacuum 13. Should have built in Active scavenging system compatible with hospital AGSS 14. Manometer gauges (Manual or Digital) <ol style="list-style-type: none"> i. Pipeline: O₂, N₂O & Air ii. Cylinder NIST: O₂, N₂O iii. Pin indexed: O₂, N₂O 15. Rotameter (hypoxic guard system) <ol style="list-style-type: none"> i. O₂ tube (Double tube) ii. N₂O tube 	04

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>iii. Air</p> <ol style="list-style-type: none"> 16. Common gas outlet option should be present. 17. Front outlet 22mm OD – 15mm ID 18. Built in Oxygen monitoring system. 19. Built in autoclavable flow sensor compatible with all type of patient. 20. Should have ability to add module or other optional features like EtCO₂, Agent monitoring. 21. Selectatec system two or more station vaporizer mounting <ol style="list-style-type: none"> i. Vaporizer should be flow and temperature compensated ii. Should not be brand specified and can be interchangeable 22. Minimum 1.5 liters CO₂ absorber volume compatible with all type of patient <ol style="list-style-type: none"> i. Absorbent canister should be Autoclavable 23. Breathing assembly/system should be completely Autoclavable and not be cycle bounded. 24. Two or more drawer units. 25. Anesthesia ventilator with minimum 15” or more color Touch LCD/TFT screen and should be capable of ventilating adult, pediatric and neonate patient. 26. Ventilation modes: MAN, SPONT, VCV, PCV, PSV 27. Should be equipped with anti-barotrauma and anti-volutrauma system 28. Tidal volume from 5 ml to 1500 ml or better 29. Ventilation frequency starting from 4 bpm up to 80 bpm or better 30. Inspiratory to expiratory time starting from 1:1 till 4:1 31. PEEP 4 cmH₂O to (20 cmH₂O or more) 32. Oxygen failure safety system 33. Measured parameters should include: Expired tidal volume, frequency, minute volume, PIP, plateau pressure, PEEP, mean pressure, airway pressure 34. Power Requirement: <ol style="list-style-type: none"> i. Line Voltages 100-240 VAC ii. Line Frequency 50/60Hz 35. Battery backup: 60 minutes or more 36. Audible and visual alarms: Low air/ N₂O/ O₂ input pressure, apnea alarm, O₂ alarms, upper/ lower limit alarms and leak or patient disconnection 37. Silent indicator, time and date and mains and battery indicator <p><u>Should Be Supplied with:</u></p> <ol style="list-style-type: none"> 1. 2*Rebreathing patient circuit for Adult and Paeds 2. 1*Reusable bag 2L 3. 1*Power cord 4. 1*Vaporizers (Isoflurane) 5. 1*Side arm for Patient Monitor attachment <p>Requirement:</p> <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty i.e., O₂ sensor, battery & etc. 2. Five years warranty of internal flow sensor. 3. PPM must be done according to the OEM criteria in warranty period 2) Up-time guarantee during warranty period must be 90 -95% <p>After Sales Service Support:</p> <ol style="list-style-type: none"> 1. Free of cost software installation and up gradation would be responsibility of 	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>manufacturer and its authorized distributor for upcoming next ten years after installation of quoted model.</p> <ol style="list-style-type: none"> 2. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by OEM. 3. Required surety of service support and parts from the manufacturer, in case of transfer agency/ distributor 4. Response to breakdown during and after warranty period must be 1-3 Hours <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram 2. In house operator training session for end user 3. In house service training session by Principal Certified resource 4. Trained service engineers with certification from the principal, Karachi based mandatory. <p>Demonstration:</p> <ol style="list-style-type: none"> 1. Quoted model demonstration is mandatory in technical approval is subject to satisfactory demonstration. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: USA / EUROPE / JAPAN / UK SHOULD HAVE FDA 510(K) / CE(MDD) / JIS /JQAO/ MHLW. MANUFACTURER FROM OTHER COUNTRIES (OTHER THAN USA, EUROPE OR JAPAN) SHOULD HAVE FDA (510K) AND CE / (MDD) / JIS / JQAO / MHLW.</p>	
05.	<p>PORTABLE SUCTION MACHINE</p> <p>Specification:</p> <ol style="list-style-type: none"> 1. Should have ability to be used in the emergency dept., intensive care, operating theatre. 2. The pump should have accurate vacuum setting with the vacuum regulator 3. Should have piston/cylinder system for a vibration free and noiseless operation (should be less than 50dB or better.) 4. The vacuum range should start from -95 kPa / 713 mmHg or better. 5. The flow rate should be adjustable from 40 to 60 liter/min. 6. One reusable suction jars of 5 liters, preferable 2 reusable jars of 5 liters. 7. Mobile Trolley Original with two lockable castor 8. Power Requirement: Line Voltages 100-240 VAC Line Frequency 50/60Hz 9. Foot switch ON/OFF <p>Requirement: Certification: 1. "FDA (510k) /CE / (MDD) / JIS / JQAO / MHLW"</p> <p>Warranty and Maintenance Period: 1. Warranty Period required 5 years with maintenance and parts replacement.</p>	11

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M																																																				
	<p>All the parts are included in the warranty.</p> <ol style="list-style-type: none"> PPM must be done according to the OEM criteria in warranty period. Up-time guarantee during warranty period must be 90 -95% <p>After Sales Service Support:</p> <ol style="list-style-type: none"> Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by OEM. Required surety of service support and parts from the manufacturer, in case of transfer agency/ distributor Response to breakdown during and after warranty period must be 1-3 Hours <p>Trainings & Manual:</p> <ol style="list-style-type: none"> Operating and service manual with troubleshooting and circuit diagram In house operator training session for end user <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: JAPAN / EUROPE / UK / USA OR EQUIVALENT</p>																																																					
06.	<p>C-ARM WITH FPD (FLAT PANEL DETECTOR)</p> <table border="1" data-bbox="228 930 1328 1986"> <tr> <td colspan="2">INPUT</td> </tr> <tr> <td>Phase</td> <td>Single</td> </tr> <tr> <td>Line Frequency</td> <td>50/60 kHz</td> </tr> <tr> <td>Line Voltages</td> <td>100-240 VAC</td> </tr> <tr> <td colspan="2">X-RAY GENERATOR</td> </tr> <tr> <td>Power</td> <td>15 KW or more</td> </tr> <tr> <td>Frequency</td> <td>HF inverter 40 kHz or better</td> </tr> <tr> <td>KV</td> <td>40kV to 120kV or better</td> </tr> <tr> <td>Maximum mA pulsed fluoroscopy</td> <td>40mA or more</td> </tr> <tr> <td>Maximum mA continuous fluoroscopy</td> <td>20mA or more</td> </tr> <tr> <td>Maximum frame rate</td> <td>25 fps or more</td> </tr> <tr> <td colspan="2">X-RAY TUBE</td> </tr> <tr> <td>Dual Focal Spot</td> <td>0.3 mm & 0.6 mm or better</td> </tr> <tr> <td>Anode heat storage capacity</td> <td>200 KHU or more with tube heat level indicator</td> </tr> <tr> <td colspan="2">DETECTOR</td> </tr> <tr> <td>Detector Type</td> <td>CMOS</td> </tr> <tr> <td>Detector Size</td> <td>20cm x 20cm or better</td> </tr> <tr> <td>Pixel Pitch</td> <td>100um or better</td> </tr> <tr> <td>Matrix</td> <td>2k * 2k or better</td> </tr> <tr> <td>Detector Quantum Efficiency (DOE)</td> <td>70% or more</td> </tr> <tr> <td>A/D Conversion</td> <td>14 bits or higher</td> </tr> <tr> <td colspan="2">C-ARM WITH MECHANICAL BRAKES</td> </tr> <tr> <td>SID</td> <td>100cm or more</td> </tr> <tr> <td>Free Space</td> <td>80cm or more</td> </tr> <tr> <td>Orbital Rotation</td> <td>140° or more</td> </tr> <tr> <td>Lateral Rotation</td> <td>200° or more</td> </tr> </table>	INPUT		Phase	Single	Line Frequency	50/60 kHz	Line Voltages	100-240 VAC	X-RAY GENERATOR		Power	15 KW or more	Frequency	HF inverter 40 kHz or better	KV	40kV to 120kV or better	Maximum mA pulsed fluoroscopy	40mA or more	Maximum mA continuous fluoroscopy	20mA or more	Maximum frame rate	25 fps or more	X-RAY TUBE		Dual Focal Spot	0.3 mm & 0.6 mm or better	Anode heat storage capacity	200 KHU or more with tube heat level indicator	DETECTOR		Detector Type	CMOS	Detector Size	20cm x 20cm or better	Pixel Pitch	100um or better	Matrix	2k * 2k or better	Detector Quantum Efficiency (DOE)	70% or more	A/D Conversion	14 bits or higher	C-ARM WITH MECHANICAL BRAKES		SID	100cm or more	Free Space	80cm or more	Orbital Rotation	140° or more	Lateral Rotation	200° or more	01
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	Arc Depth	65cm or more	
	IMAGE ACQUISITION SYSTEM		
	Automatic exposure termination & automatic brightness control		
	Anatomy enhancement feature		
	Motion artifact reduction feature		
	Dedicated Metal artifact reduction feature		
	Zoom in and out feature on live acquisition		
	Last image hold function		
	Negative mode feature		
	360° digital image rotation for easy adjustment		
	Built in image storage	100,000 images or more	
	Dual USB Port		
	2K display output port for image display in doctor's room		
	Laser aimer Feature	With activation button	
	Double peddle foot switch		
	Hand switch for exposure		
	Double peddle foot switch		
	Hand switch for exposure		
	DICOM Features:	<ul style="list-style-type: none"> • Modality work list • Storage • Query/Retrieve • Import/Export (DVD &USB) • Print • Work list MPPS • Storage Commitment • Radiation dose SR 	
	IMAGE DISPLAY TECHNOLOGY		
	Display with articulating arm	32" or more single monitor with full FHD (1920x1080) or more resolution.	
	Display with original Trolley		
	Resolution		Incase 32" FHD or more not available in configuration by OEM then 19" dual monitor with resolution (1280x1024) or more will be acceptable.
	User Interface	Keyboard and mouse facility or Touchscreen compatible	
	OPERATOR CONTROL PANEL		
	Size	10" or larger display	
	Touchscreen Compatibility		
	APPLICATIONS		
	Automatic Image Save		
	Noise Reduction		
	Edge Enhancement		
	Low dose image Processing		
	DSA	Cine image Acquirement	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M		
	<table border="1" data-bbox="228 197 1328 306"> <tr> <td data-bbox="228 197 748 306"></td> <td data-bbox="748 197 1328 306">Land-marking Tracing Roadmap</td> </tr> </table> <p>Requirements:</p> <p>Certification:</p> <ol style="list-style-type: none"> 1. “FDA (510k) and CE / MHLW / JIS / JQAO” <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty period required 3 years with maintenance and parts replacement. All the parts are included in the warranty i.e., LCD, software etc. 5 Year’s X-ray tube & Detector. 2. PPM must be done according to the OEM criteria in warranty period. 3. Up-time guarantee during warranty period must be 90-95% <p>After Sales Service Support:</p> <ol style="list-style-type: none"> 1. Free of cost software installation and up gradation of purchase application and software plat form would be responsibility of manufacturer and its authorized distributor for upcoming next ten years after installation of quoted model. 2. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by OEM. 3. Required surety of service support and parts from the manufacturer, in case of transfer agency/ distributor. 4. Response to breakdown during and after warranty period must be 1-3 Hours <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram 2. In house operator training session for end user 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p>		Land-marking Tracing Roadmap	
	Land-marking Tracing Roadmap			
07.	<p>VIDEO ASSISTED THORACOSCOPIC SURGERY (Should be compatible with existing camera system)</p> <ol style="list-style-type: none"> 1. Straight Forward Telescope 0°, enlarged view, diameter 8-10 mm, length 28-32 cm, autoclavable, and fiber optic light transmission incorporated Qty. 01 2. Forward-Oblique Telescope 30°, enlarged view, diameter 8-10 mm, length 28-32 cm, autoclavable, fiber optic light transmission incorporated Qty. 01 3. Trocar, with blunt tip, flexible cannula, without valve, autoclavable, size 5-6 mm, working length 8-10 cm Qty. 01 <p>Consisting of: Cannula, flexible Trocar only</p> <ol style="list-style-type: none"> 4. Trocar, with blunt tip, flexible cannula, autoclavable, size 10-12 mm, working length 8-10 cm Qty. 01 <p>Consisting of: Cannula</p>	01		

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>Trocar only 5. Trocar, with blunt tip, size 12-14 mm, working length 5-6 cm, Qty. 01 Consisting of: Cannula, with thread Trocar only</p> <p>6. Parenchymal Forceps, dismantling, atraumatic, straight jaws, single action jaws, size 4-5 mm, length 28-30 cm, Qty. 01 Consisting of: Metal Y-Handle, axial, with 4 locking positions Outer Tube with Forceps Insert</p> <p>7. Parenchymal Forceps, dismantling, atraumatic, double curved jaws, single action jaws, size 4-5 mm, length 28-30 cm, Qty. 01 Consisting of: Metal Y-Handle, with ratchet, axial, with 4 locking positions Outer Tube with Forceps Insert</p> <p>8. Lung Forceps, dismantling, atraumatic, grasping at distal end, single curved jaws, single action jaws, size 4-5 mm, length 28-30 cm, Qty. 01 Consisting of: Metal Y-Handle, axial, with 4 locking positions Outer Tube with Forceps Insert</p> <p>9. Lung Forceps, dismantling, atraumatic, curved jaws, fenestrated, single action jaws, size 4-5 mm, length 28-30 cm, Qty. 01 Consisting of: Metal Y-Handle, axial, with 4 locking positions Outer Tube with Forceps Insert</p> <p>10. Lung Nodule Forceps, dismantling, atraumatic, curved jaws, fenestrated, single action jaws, size 4-5 mm, length 28-30 cm, Qty. 01 Consisting of: Metal Handle, axial, with 4 locking positions, with ratchet Outer Sheath with Forceps Insert</p> <p>11. Scissors, dismantling, insulated, with connector pin for unipolar coagulation, double action jaws, curved scissor blades, size 4-5 mm, length 28-30 cm, Qty. 01 Consisting of: Plastic Handle, axial, without ratchet, with 4 locking positions Outer Sheath with Scissors Insert</p> <p>12. Biopsy Forceps, dismantling, insulated, with connector pin for unipolar coagulation, distally angled outer sheath, single action jaws, jaws open vertically to angulation, size 4-5 mm, length 28-30 cm, Qty. 01 Consisting of: Plastic Handle, axial, without ratchet, with 4 locking positions Outer Sheath with Forceps Insert"</p> <p>13. Suction-Coagulation Cannula, with connector pin for unipolar coagulation, distally angled sheath, size 4-5 mm, length 28-30 cm, Qty. 01</p> <p>14. Handle with Trumpet Valve, for suction or irrigation, autoclavable, for use with 4-5 mm coagulation suction tubes and 3- 5 mm suction and irrigation tubes Qty. 01</p> <p>15. Coagulating and Dissecting Electrode, L-shaped, insulated, with connector pin for unipolar coagulation, distally angled sheath, size 4-5 mm, length 28-30 cm Qty. 01</p> <p>16. Palpation Probe, with cm marking, size 4-5mm, length 35-38 cm Qty. 01</p> <p>17. KOH Macro Needle Holder, ergonomic axial handle with dis-engageable</p>	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>ratchet, ratchet release on the right side, left curved jaws; with tungsten carbide insert ø4- 5 mm, length 32-34 cm Qty. 01</p> <p>18. Unipolar High Frequency Cord,</p> <p>19. Scissors, CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, distally angled outer sheath, straight scissor blades, scissor blades open vertically to angulation, size 4-5 mm, length 28-30 cm Qty. 01</p> <p>Consisting of: Plastic Handle, without ratchet Scissors Insert with Outer Sheath</p> <p>20. Wire Container, for Sterilization, and storage, two rigid endoscopes Qty. 01</p> <p>21. Plastic Container, for Sterilization and Storage of Variable Instrument Sets, perforated, with transparent lid, with silicone mat, two- level storage. The plastic containers are suitable for steam, gas and hydrogen peroxide sterilization" Qty. 01</p> <p>22. CMOS FULL HD Camera Head, compatible, progressive scan, Autoclavable Qty. 01</p> <p>Technical data: Image sensor: CMOS chip Pixels: 1920 x 1080 or better Sensor type: CMOS Aspect Ratio: 16:9 or better</p> <ul style="list-style-type: none"> • Progressive scan (full frame) for integrated zoom lens • f = 15-16 mm or better • Display of 50 or 60 frames per second or better <p>23. Fiber optic light cable 4-6mm diameter, 240-260 cm length extremely heat resistant Qty. 01</p> <p>Optional (Must be quoted as optional) LED light source Qty. 01 The compact, high-performance cold light source Cold, white light that generates virtually no heat The device is energy-efficient, noiseless, and does not require lamp changes. Special features:</p> <ul style="list-style-type: none"> • Extremely long average lamp life time of 30,000 hours or more • Natural color rendition • Light adaptor with glare shield protection sleeve. • Extraordinarily quiet operation. • Standby button with memory function for last chosen light intensity value. • Manual control via camera head buttons from sterile field by <p>Communication bus in combination with compatible camera systems</p> <ul style="list-style-type: none"> • Safety class CF. <p>Technical data:</p> <ul style="list-style-type: none"> • Lamp type: High performance LED. • Color temperature: approx. 6000 K. • Lamp life 30,000 hrs. Or better • Light intensity adjustment: Continuously manual/ Automatic both <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p>	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO</p> <p>Warranty and Maintenance Period:</p> <p>1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty.</p> <p>2. PPM must be done according to the OEM criteria in warranty period.</p> <p>3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M.</p> <p>4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M.</p> <p>5. Up-time guarantee during warranty period must be 90-95%.</p> <p>6. Response to breakdown during and after warranty period must be 1-3Hours.</p> <p>7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below;</p> <p>90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <p>1. Operating and service manual with troubleshooting and circuit diagram must be provided.</p> <p>2. In house operator training session for end user.</p> <p>3. In house service training session by Principal Certified resource</p> <p>4. Trained Service Engineers with certification from the principle, Karachi based mandatory.</p> <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: JAPAN / EUROPE / UK / USA OR EQUIVALENT</p>	
08.	<p>DIGITAL CEILING MOUNTED X-RAY MACHINE WITH STAND BUCKY</p> <p>System Combination:</p> <ul style="list-style-type: none"> • High Frequency Generator, 50 kW / 600mA /150kV • Motorized Collimator • Ceiling Mounted Tube Stand with Auto Tracking • Six Way Floating Top Table • 2 nos. Digital Flat Panel Detector • Rotating Anode X-Ray Tube 300KHU • Tilting Wall Bucky Stand • Acquisition Workstation with Software 	01

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<ul style="list-style-type: none"> • 10 kVA UPS for Workstation and Control System <p>Technical Specification</p> <ul style="list-style-type: none"> • High Frequency Generator: • Microprocessor controlled base Inverter Technology High frequency Generator:50 kW or more • Radiography kV from 40 to 150 kV, 1 kV steps. • mA range: from 10 to 600 mA or more • Radiographic mAs range from: 0.5mAs to 490 mAs or better. • Anatomical 300 programs or more. • Exposure timer: From 1 m to 10 s. • Automatic Exposure Control (AEC) facility. • Overload Protection • Automatic Line compensation • Input Power: Three Phase, 380-400V AC, 50/60 Hz <p>Motorized Collimator:</p> <ul style="list-style-type: none"> • Motorized with Automatic collimator. • The collimator must have four pairs of mobile lead shutters and two pairs of pre-shutters. • Motorized with automatic and manual modes. • Automatic cassette and detector sensing. • LED Light beam (160 lux or better at 1m) and laser indicator <p>Ceiling Suspension Tube Stand:</p> <ul style="list-style-type: none"> • Auto tracking ceiling suspension with control system and vertical axis motorized to allow the auto tracking function • Maximum focal spot / ceiling distance: 2,300 mm or better • Servo assisted and counterbalanced vertical movement • Column Rotation $\pm 180^\circ$ or better with mechanical stop • Tube Rotation $\pm 130^\circ$ or better with mechanical stop <p>Six Way Floating Tabletop:</p> <ul style="list-style-type: none"> • Motorized Height adjustment up / down movement • Radiographic elevating table 6-way moving tabletop with Bucky table. • Auto tracking during table height adjustment for tube and SID. • Foot paddle for height adjustment of the patient positioning tale of the floating tabletop. • Should have Longitudinal, Lateral and Vertical movement • Maximum patient weight: 250 kg or more • Removable Grid, Ratio 10:1 or better <p>Digital Flat Panel Detectors (1 for Chest Stand and 1 for Table Bucky)</p> <ul style="list-style-type: none"> • Effective Imaging area: 17 x 17 inches • Cesium Iodide (Csl) or better • Pixel Pitch: 140 μm or better • Pixel Matrix: 2k x 2k or better • A/D Conversion: 16 bit or better • DQE: > 70% or better • Image Preview: Approx. 3 second or better • Image to image cycle: approx. 6 second or better • DICOM 3.0 Compatible. 	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<ul style="list-style-type: none"> • Wired detector and can be attached and configure with other X-ray system <p>Rotating Anode X-Ray Tube</p> <ul style="list-style-type: none"> • Maximum Tension, 150 kVp • Dual Focus X-Ray Tube • Small focus 0.6 mm / Large focus 1.2 mm • Anode heat capacity 300 KHU or better • Anode degree target angle, 12° <p>Tilting Chest Bucky Stand</p> <ul style="list-style-type: none"> • Auto tracking during chest Bucky height adjustment for tube and SID. • Motorized vertical travel 150cm or better • Tilting angle of Bucky from -20° to +90° or better • Bucky rotation around the center of image 90° • Removable Grid Ratio 10:1, Focused 150 cm or better <p>Acquisition Workstation:</p> <ul style="list-style-type: none"> • Processor: Intel Core i5 or better • Memory: 8 GB or more • Hard Drive: 1 TB, Storage Capacity 50,000 or more Images • 23 inch or more LCD monitor • Mouse and Keyboard, DVD writer • Full DICOM 3.0 Compatibility <p>Software:</p> <ul style="list-style-type: none"> • Image quality control tools with pixel fixing tools • Flexible configuration including language localization • Image cropping image mirror, rotate etc. • Interfacing with HIS/RIS and PACS • Harmonize contrast and enhance image details in software. • DICOM sent, DICOM image print, DICOM CD/DVD <p>Accessories:</p> <ul style="list-style-type: none"> • Lead Glass 1.5 mm, Size 80cm x 100cm • Compression belt • Lead aprons: 0.5 mm • Thyroid shield: 0.5 mmPb • Lead google and gonadal shields • Detector holder for lateral radiography <p>Site Renovation:</p> <ul style="list-style-type: none"> • Site preparation / renovations including all type of constructions, entrance door, operator room, console room with lead 1’x1’ glass, lead shielding of the system room and doors, Air-Conditioning, False ceiling, painting, UPS and its installation, Electrical DB, Earthing and Power cable from Main Transformer / Hospital LT Panel and all other works required for the installation is the responsibility of the vendor/supplier all cost related to fully functional suite will borne by contractor and include in the quoted cost. <p>Requirements:</p> <p>Certification:</p> <ul style="list-style-type: none"> • “FDA (510k) / CE / (MDD) / JIS / JQAO” <p>Warranty and Maintenance Period:</p> <ul style="list-style-type: none"> • Warranty period required 5 years with maintenance and parts replacement. 	

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	<p>All the parts are included in the warranty i.e. detector, X-ray tube, LCD, software etc.</p> <ul style="list-style-type: none"> • PPM must be done according to the OEM criteria in warranty period. • Up-time guarantee during warranty period must be 90-95% <p>After Sales Service Support:</p> <ul style="list-style-type: none"> • Free of cost software installation and up gradation of purchase application and software plat form would be responsibility of manufacturer and its authorized distributor for upcoming next ten years after installation of quoted model. • Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by OEM. • Required surety of service support and parts from the manufacturer, in case of transfer agency/ distributor. • Response to breakdown during and after warranty period must be 1-3 Hours <p>Trainings & Manual:</p> <ul style="list-style-type: none"> • Operating and service manual with troubleshooting and circuit diagram • In house operator training session for end user • In house service training session by Principal Certified resource • Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier. COUNTRY OF ORIGIN: JAPAN / EUROPE / UK / USA OR EQUIVALENT</p>	
09.	<p>AUTOMATIC ANKLE BRACHIAL INDEX SYSTEM (ABI)</p> <ol style="list-style-type: none"> 1. Should have records the ankle pulse volume waveforms which provides pictorial evidence to aid a clinician's diagnosis. 2. Calculated easily and accurately in 5 minutes or better without the need to rest the patient 3. Results must be automatically calculated 4. Interpreted and displayed with Pulse Volume waveforms on the LCD panel. 5. Easy to use, automatic system 6. No need to rest the patient 7. Automated system that is based on Volume Plethysmography and records the PVR waveform 8. Reduces inappropriate referrals 9. Immediate printouts 10. Printouts and archiving of results 11. Integral easy grip handle 12. Integrated thermal printer 13. Clear display showing test status, numerical results, waveform, and interpretation 14. Simple user interface 15. Color coded, easy connect tubing 16. Accessories: 17. Box of disposable sleeves 18. Set of standards (22 cm-36 cm) cuffs 	01

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>19. Pack of standard thermal paper 20. Set of adhesive paper 21. And all standard accessories Power Requirement: 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz Requirement: Certification: 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO Warranty and Maintenance Period: 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily Trainings & Manual: 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier. COUNTRY OF ORIGIN: JAPAN / EUROPE / UK / USA OR EQUIVALENT</p>	
10.	<p>PATIENT MONITOR FOR OPERATION THEATER 1. Monitor for Adult / Paeds / Neonates 2. Operating Features and Characteristics:</p>	12

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>3. Screen Size: At least 15” or more diagonal (Touch Operated) or better with non-fade LCD / TFT LCD / LED color display</p> <p>4. Electro-Surgical Interference Suppression / Protection</p> <p>5. Defibrillator Protection</p> <p>6. Freeze and Cascade Facility</p> <p>7. Waveform: Six wave forms or more</p> <p>8. Waveform Traces Speed: 25 & 50 mm / sec</p> <p>Parameters:</p> <p>EKG</p> <p>1. Input: 3&5-lead ECG cable and standard AAMI line for connection Lead Choice: I, II, III, aVR, aVF, aVL, V, V1-V6,</p> <p>2. Numeric: Heart Rate</p> <p>3. Real time, and freeze ECG Trace</p> <p>Non-Invasive Blood Pressure (NIBP):</p> <p>1. Method: Oscillometric Principle</p> <p>2. Numeric: Systolic, Diastolic, and Mean Pressure</p> <p>3. Selectable auto inflate interval settings</p> <p>4. Rising Cuff / Continuous Pressure Display</p> <p>Invasive Blood Pressure (IBP):</p> <p>1. IBP Two or more Channels</p> <p>EtCO2:</p> <p>1. Mainstream Capnography (EtCO2)</p> <p>C.O (Cardiac Output):</p> <p>1. Measurement Method Thermodilution Method</p> <p>Temperature:</p> <p>1. Numeric: Temperature selectable in °C / °F</p> <p>Pulse Oximetry:</p> <p>1. Numeric: 0 – 100% oxygen saturation measuring range</p> <p>2. Waveform-Plethysmograph Pulse with Pulse Strength Indication</p> <p>3. Probe preferable Masimo/Nellcor</p> <p>Arrhythmia Analysis:</p> <p>1. Arrhythmia Analysis and ST Analysis</p> <p>Respiration:</p> <p>1. Breath Rate display and settable apnea alarms</p> <p>2. Sweep Speed: 6.25, 12.5 mm / sec or better</p> <p>Other Parameters:</p> <p>1. Built-in rechargeable battery with 2 or more-hour battery backup</p> <p>2. Monitor should have ability to add module or other optional features like Agent monitoring and IBP up to 4 channels. IBP up to 4 channel, Agent Monitoring and etc.</p> <p>3. Trend Data: Graphical / Tabular with at-least 48 hours’ or better</p> <p>4. Should have feature for the connectivity with the Central Monitoring station</p> <p>Alarms:</p> <p>1. High & Low (settable) on all parameters</p> <p>2. Visual and audible indication of alarms</p> <p>Communication:</p> <p>1. Capability to interface with LAN / WLAN for data transfer</p> <p>Accessories:</p> <p>1. The system must be complete with all reusable (sensors, probes, cables, or any</p>	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>other accessories) required for measuring all the above selected parameters for Adult, Paeds and Neonates</p> <p>2. Reusable Cuffs (Latex Free) of all available sizes of all body contours</p> <p>Note: Monitor attachment with existing installed anesthesia machine side arm is the responsibility of supplier/vendor</p> <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. (Battery, EtCO2 sensor and all others parts are included). 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; <ul style="list-style-type: none"> 90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier. Country of Origin: USA / Europe / JAPAN / UK should have FDA 510(k) / CE(MDD) / JIS /JQAO/ MHLW. Manufacturer from other Countries (other than USA, Europe or Japan) should have FDA (510k) and CE / (MDD) / JIS / JQAO / MHLW.</p>	

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11.	<p>ANKLE & TOE PRESSURE KIT</p> <ol style="list-style-type: none"> 1. Vascular Digital Doppler: 2. High Resolution Color Display 3. Bi-directional Doppler Waveform Display 4. Noise Reduction to reduce the background hiss 5. Removable Micro SD Card Storage 6. Compatible with Interchangeable Probes 7. Integrated Loudspeaker 8. Flow Separated Stereo Headphone Output 9. Auto Gain Control 10. Rechargeable Battery with 2 hours or more battery backup 11. Medical grade recharging kit 12. Wide beam 8MHz Doppler probe 13. APPG (Arterial Plethysmography) probe and adaptor 14. Toe cuffs & inflator 15. Arm/Ankle cuffs (standard and large: latex free) 16. Trigger operated sphyg 17. Neuropen & tips 18. Large carry bag <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; <ul style="list-style-type: none"> 90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 	01

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	<p>2 In house operator training session for end user. 3 In house service training session by Principal Certified resource 4 Trained Service Engineers with certification from the principle, Karachi based mandatory.</p> <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier. Country of Origin: USA / Europe / JAPAN / UK should have FDA 510(k) / CE (MDD) / JIS /JQAO/ MHLW. Manufacturer from other Countries (other than USA, Europe or Japan) should have FDA (510k) and CE / (MDD) / JIS / JQAO / MHLW.</p>	
12.	<p>SCRUB UNITS</p> <ol style="list-style-type: none"> The main features of a scrub sink include: Water control – Water controls on scrub sinks can be operated with a hands-free feature like a knee operated panel/foot pump, and infrared sensor. Digital timer – A digital timer is used to ensure that the proper amount of time is spent on hand hygiene before entering the operating room. Timers count down from a pre-determined start to prevent scrubbing in for less than the desired length of time. Soap dispenser – Soap is dispensed by a hand pump, foot pump/knee operation, or infrared Station / Bay – Scrub Three stations at which multiple members of the OR staff can wash their hands at the same time. <p>Power Requirement:</p> <ol style="list-style-type: none"> Linevoltages:100-240VAC Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <ol style="list-style-type: none"> System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. PPM must be done according to the OEM criteria in warranty period. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. Up-time guarantee during warranty period must be 90-95%. Response to breakdown during and after warranty period must be 1-3Hours. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 90% → No Down Time Below 90% → 1.5 days increase daily 	11

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily Trainings & Manual: 1 Operating and service manual with troubleshooting and circuit diagram must be provided. 2 In house operator training session for end user. 3 In house service training session by Principal Certified resource 4 Trained Service Engineers with certification from the principle, Karachi based mandatory. Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: USA / EUROPE / JAPAN / UK OR EQUIVALENT</p>	
13.	<p>PATIENT MONITOR FOR ICU 1. Monitor for Adult / Paeds / Neonates 2. Operating Features and Characteristics: 3. Screen Size: At least 15” or more diagonal (Touch Operated) or better with non-fade LCD / TFT LCD / LED color display 4. Electro-Surgical Interference Suppression / Protection 5. Defibrillator Protection 6. Freeze and Cascade Facility 7. Waveform: Six wave forms or more 8. Waveform Traces Speed: 25 & 50 mm / sec Parameters: ECG 1. Input: 3&5-lead ECG cable and standard AAMI line for connection Lead Choice: I, II, III, aVR, aVF, aVL, V, V1-V6, 2. Numeric: Heart Rate 3. Real time, and freeze ECG Trace Non-Invasive Blood Pressure (NIBP): 1. Method: Oscillometric Principle 2. Numeric: Systolic, Diastolic, and Mean Pressure 3. Selectable auto inflate interval settings 4. Rising Cuff / Continuous Pressure Display Invasive Blood Pressure (IBP): 1. IBP Two or more Channels EtCO2 (optional must be quoted): 1. Mainstream Capnography (EtCO2) C.O (Cardiac Output): 1. Measurement Method Thermodilution Method Temperature: 1. Numeric: Temperature selectable in °C / °F Pulse Oximetry: 1. Numeric: 0 – 100% oxygen saturation measuring range 2. Waveform-Plethysmograph Pulse with Pulse Strength Indication 3. Probe preferable Masimo/Nellcor</p>	26

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>Arrhythmia Analysis:</p> <ol style="list-style-type: none"> 1. Arrhythmia Analysis and ST Analysis <p>Respiration:</p> <ol style="list-style-type: none"> 1. Breath Rate display and settable apnea alarms 2. Sweep Speed: 6.25, 12.5 mm / sec or better <p>Other Parameters:</p> <ol style="list-style-type: none"> 1. Built-in rechargeable battery with 2 or more-hour battery backup 2. Monitor should have ability to add module or other optional features like EtCO₂, Agent monitoring and IBP up to 4 channels. 3. Trend Data: Graphical / Tabular with at-least 48 hours' or better 4. Should have feature for the connectivity with the Central monitoring station <p>Alarms:</p> <ol style="list-style-type: none"> 1. High & Low (settable) on all parameters 2. Visual and audible indication of alarms <p>Communication:</p> <ol style="list-style-type: none"> 1. Capability to interface with LAN / WLAN for data transfer <p>Accessories:</p> <ol style="list-style-type: none"> 1. The system must be complete with all reusable (sensors, probes, cables, or any other accessories) required for measuring all the above selected parameters for Adult, Paeds and Neonates 2. Reusable Cuffs (Latex Free) of all available sizes of all body contours 3. Height and tilt adjustable wall mounts (Quick release of monitor) and (Medical grade construction) <p>Note: Monitor stand installation and Monitor attachment with wall stand is the responsibility of supplier/vendor</p> <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Linevoltages:100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. (Battery, EtCO₂ sensor and all others parts are included). 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 90% → No Down Time Below 90% → 1.5 days increase daily 	

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	<p>Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily Trainings & Manual: 1 Operating and service manual with troubleshooting and circuit diagram must be provided. 2 In house operator training session for end user. 3 In house service training session by Principal Certified resource 4 Trained Service Engineers with certification from the principle, Karachi based mandatory. Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier. Country of Origin: USA / Europe / JAPAN / UK should have FDA 510(k) / CE(MDD) / JIS /JQAO/ MHLW. Manufacturer from other Countries (other than USA, Europe or Japan) should have FDA (510k) and CE / (MDD) / JIS / JQAO / MHLW.</p>	
14.	<p>HIGH-DEFINITION VIDEO MEDIASTINOSCOPE (Compatible with existing camera system)</p> <ol style="list-style-type: none"> 1. HD Video Mediastinoscope, With Integrated led light source with continuous proximal lateral slit, length 14-16 cm, Or better, fully Autoclavable. Qty. 01 2. Biopsy Forceps, rotating, dismantling, insulated, with connector pin for unipolar coagulation, single action jaws, approx. size 5 mm, length 22-25 cm or better Qty. 01 3. METZENBAUM Scissors, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, curved, approx. size 5 mm, length 22-25 cm or better Qty. 01 4. Coagulation Suction Cannula insulated, with connector pin for unipolar coagulation, angled handle, and diameter approx. 5 mm, length 18-22 cm or better Qty. 01 5. Coagulation Suction Cannula insulated, with connector pin for unipolar coagulation, angled handle, and diameter approx. 5 mm, length 28-32 cm or better Qty. 01 6. Coagulation Suction Cannula, curved distally, insulated, with connector pin for unipolar coagulation, angled handle, diameter approx. 5 mm, length 18-22 cm or better Qty. 01 7. Coagulation Suction Cannula, insulated, with connector pin for unipolar coagulation, curved distally, angled handle, diameter approx. 5 mm, length 28-32 cm or better Qty. 01 8. Biopsy Forceps, oval jaws, size 8 x 16 mm or better, sheath diameter approx. 5 mm, length 20-22 cm or better Qty. 01 9. Biopsy Forceps, spoon- shaped jaws, jaw diameter approx. 5 mm, shaft diameter approx. 5 mm, length 20-22 cm or better Qty. 01 10. Sponge and Dissecting Forceps, fenestrated, double action jaws, with cleaning connector, length 28-32 cm or better Qty. 01 11. Aspiration Cannula, made of glass, length 18-22 cm, consisting of cannula, injection needle Qty. 01 12. Silicone Tube, with LUER-Lock connector, for connecting Aspiration Cannula 	01

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>to a LUER-Lock suction syringe Qty. 01</p> <p>13. Clip Forceps, jaws curved to right, with cleaning connector, working length 20-24 cm, Qty. 01</p> <p>14. Clip, Titanium, medium, 5 mm or better, sterile, package of 35 or more cartridges with 5 or more clips each</p> <p>15. Unipolar High Frequency Cord, Qty. 01</p> <p>16. Plastic Container, for Sterilization and Storage of Variable Instrument Sets, Qty. 01</p> <p>17. 27" or more Medical Grade Monitor from the same manufacturer Qty. 01</p> <p>18. Resolution: 1920x1080p</p> <p>19. Video Inputs: 2xDVI, 1x3G-SDI, 1xRGB, 1x S-Video, 1x Composite Video Outputs:</p> <p>20. 1x DVI, 1X 3G-SDI, 1xComp, 1x S-Video, 1x RS232</p> <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Linevoltages:100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note:</p>	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>Country of Origin: USA / Europe / JAPAN / UK should have FDA 510(k) / CE (MDD) / JIS /JQAO/ MHLW.</p> <p>Manufacturer from other Countries (other than USA, Europe or Japan) should have FDA (510k) and CE / (MDD) / JIS / JQAO / MHLW.</p>	
15.	<p>DIATHERMY</p> <ol style="list-style-type: none"> 1. Microprocessor based electrosurgical unit for normal and under water cutting usages. 2. Automatic self-test function 3. Operation in radio frequency range 4. Controls for cutting, coagulation, spray and blends 5. Monopolar cutting power of 300 watts or more 6. Bipolar cutting power of 80 watts or more 7. Mono polar coagulation power of 100 Watts or more 8. Bipolar coagulation power of 50 Watts or more 9. Spray coagulation mode. 10. Different gradations of blending of cutting and coagulation power 11. Digital display of all set values of cutting and coagulation power 12. Audio and visual alarms 13. Protection against electric shock: CF Class applied part equipment 14. Protection against harmful water penetration: IPX1 – Protected against vertical water drops 15. Classification (EC Directive 93/42): Class IIb <p>Accessories:</p> <ol style="list-style-type: none"> 1. Double footswitch monopolar, single footswitch bipolar, electrode hand-piece, multipurpose electrode set (ball /loop/straight knife/needle), Reusable patient cable for return patient pads, power cable and Reusable silicon patient plate <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <ol style="list-style-type: none"> 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; 	12

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	<p>then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below;</p> <p>90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: USA / EUROPE / JAPAN / UK OR EQUIVALENT</p>	
16.	<p>BATTERY OPERATED ORTHO DRILL WITH ATTACHMENTS</p> <ol style="list-style-type: none"> 1. Researchable Battery with 2 hours or more battery backup; 2. Lid for battery 3. Charge status display 4. Maximum Speed 950 or more rpm 5. Maximum Torque: 4.5 Nm or better 6. Temperature and current Sensitive over load Protection 7. Light weight preferably less than 1.5 kg including battery and lid 8. Sterile Cover 9. Universal Battery Charger for same manufacturer with status indication 10. Drill Chuck, with key, clamping range up to Ø 7 mm or better Speed: approx. 1200 or more rpm Chucking range: 1.0–6.0 mm or better Cannulation: 4 mm or better 11. Screw Attachment, with AO/ASIF Quick Coupling Speed: approx. 250 rpm or better Cannulation: 4 mm or better 12. Attachment for Acetabular and Medullary Reaming Speed: approx. 250 rpm or better Cannulation: 4 mm or better 13. Quick Coupling for Kirschner Wires Ø 1.0 to 4 mm or better 1200 Rpm or better 14. Sagittal Saw Attachment Frequency: Approx.11,000 cpm or better Deflection: approx. 4.0° or better <p>Accessories:</p> <ol style="list-style-type: none"> 1. Drill & Saw with all standard accessories. 2. Bio barrier container with all standard accessories including filter, re-useable modular lock mechanism and filter paper at least 5000cycle (100each with box and 	02

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>disposable security seal 5000pcs.)</p> <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <ol style="list-style-type: none"> 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 3 years with maintenance and parts replacement. All the parts are included in the warranty. (Battery, and all others parts like attachments, hand piece, motor etc. are included). 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; <ul style="list-style-type: none"> 90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: JAPAN / EUROPE / UK / USA OR EQUIVALENT</p>	
17.	<p>DEFIBRILLATOR</p> <ol style="list-style-type: none"> 1. The defibrillator should be built on Biphasic concept. 2. LCD color display with Screen Size of approx. 5 inches or better 3. Synchronized output with ECG. 4. For External Defibrillation Energy Selection & Delivery on Control Panel and / 	08

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	<p>Or External Paddles</p> <p>5. For Internal Defibrillation Energy Selection on Control Panel and / Or Internal Paddles and Delivery must be on Internal Paddles</p> <p>6. Charging Indicator</p> <p>7. The energy range should be adjustable for Neonates, Paeds and Adults up to 200 Joules or better</p> <p>8. Charging Time for full energy should be less than 6 – 7 seconds</p> <p>9. Display of HR, ECG through paddles and Lead I, II & III patient cable</p> <p>10. Built-in recorder for printing of full summary</p> <p>11. Alarms for High and low Heart rate, low battery warning</p> <p>12. Auto Tester / Self-Check</p> <p>13. External Paddles (Adult and Paeds)</p> <p>14. AED Facility with Cable</p> <p>15. Pacing Facility</p> <p>16. Other Parameters:</p> <p>Built-in Rechargeable battery with charger for minimum 100 shocks at maximum energy</p> <p>Power Requirement:</p> <p>1. Linevoltages:100-240VAC</p> <p>2. Line Frequency: 50/60 Hz</p> <p>Requirement:</p> <p>Certification:</p> <p>1. System should have Certification FDA 510(k) and CE/JIS/MHLW/JQAO</p> <p>Warranty and Maintenance Period:</p> <p>1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. (Battery, and all others parts are included).</p> <p>2. PPM must be done according to the OEM criteria in warranty period.</p> <p>3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M.</p> <p>4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M.</p> <p>5. Up-time guarantee during warranty period must be 90-95%.</p> <p>6. Response to breakdown during and after warranty period must be 1-3Hours.</p> <p>7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below;</p> <p>90% → No Down Time</p> <p>Below 90% → 1.5 days increase daily</p> <p>Below 75% → 3.5 days increase daily</p> <p>Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <p>1. Operating and service manual with troubleshooting and circuit diagram must be provided.</p> <p>2. In house operator training session for end user.</p>	

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	<p>3. In house service training session by Principal Certified resource</p> <p>4. Trained Service Engineers with certification from the principle, Karachi based mandatory.</p> <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p>	
18.	<p>PORTABLE MONITOR</p> <ol style="list-style-type: none"> 1. Digital display LCD/LED 2. Anti-drop proof approx. 4-6 feet <p>NIBP:</p> <ol style="list-style-type: none"> 1. Method: Oscillometric Principle 2. Numeric: Systolic, Diastolic, and Mean Pressure 3. Selectable auto inflate interval settings 4. Rising Cuff / Continuous Pressure Display 5. NIBP Measurement Record: 2000 or more <p>SPO2:</p> <ol style="list-style-type: none"> 1. Preferable Masimo/Nellcor 2. Pulse Oximeter with Plethysmograph waveform and Pulse Strength Indication 3. Complete with all standard accessories reusable SPO2 probe for Paeds and Adult, reusable NIBP cuff with all standard sizes and etc. 4. Rechargeable battery with 2 hours or more battery backup 5. Can be added other options like ECG, TEMP, and EtCO2 6. Integrated thermal printer optional <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Linevoltages:100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. (Battery, and all others parts are included). 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 90% → No Down Time Below 90% → 1.5 days increase daily 	10

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	<p>Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>Country of Origin: USA / Europe / JAPAN / UK should have FDA 510(k) / CE (MDD) / JIS /JQAO/ MHLW. Manufacturer from other Countries (other than USA, Europe or Japan) should have FDA (510k) and CE / (MDD) / JIS / JQAO / MHLW.</p>	
19.	<p>VASCULAR DOPPLER:</p> <ol style="list-style-type: none"> 1. High Resolution Color Display 2. Vascular Probe: 8 MHz, 10 MHz and Intraoperative probe. 3. Bi-directional Doppler Waveform Display 4. Noise Reduction to reduce the background hiss 5. Removable Micro SD Card Storage 6. Compatible with Interchangeable Probes 7. Integrated Loudspeaker 8. Flow Separated Stereo Headphone Output 9. Auto Gain Control 10. Rechargeable Battery with 2 hours or more battery backup 11. Medical grade recharging kit 12. Accessories: complete with: gel, soft carry bag, user manual. Vascular probe (8 & 10 MHz and Intraoperative probe) and Adaptor for battery charging <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Linevoltages:100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement: Certification:</p> <ol style="list-style-type: none"> 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. (Battery, and all others parts are included). 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 	02

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	<p>6 Response to breakdown during and after warranty period must be 1-3Hours.</p> <p>7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below;</p> <p>90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <p>1 Operating and service manual with troubleshooting and circuit diagram must be provided.</p> <p>2 In house operator training session for end user.</p> <p>3 In house service training session by Principal Certified resource</p> <p>4 Trained Service Engineers with certification from the principle, Karachi based mandatory.</p> <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: JAPAN / EUROPE / UK / USA OR EQUIVALENT</p>	
20.	<p>COLOR DOPPLER ULTRASOUND MACHINE</p> <p>1. Color Doppler with Fully Digital Beam former</p> <p>2. Having 2D / M-Mode and Doppler Facilities, (PW, HPRF, & Color Flow Imaging) with High Resolution Imaging Doppler Signal Quality</p> <p>1) B- MODE SPECIFICATION:</p> <p>1. Viewing Depth: 30 cm Minimum (Both in B & W and Color).</p> <p>2. Frame Rate: 1200 f/sec or more in B-mode.</p> <p>3. Built-in cine loop with ability to vary reverse and slow motion of display;</p> <p>Internal Memory 1000 / 200MB or more Color Images.</p> <p>4. Real time and Freeze Image Magnification at least 10X or more with panning for Real</p> <p>5. Freeze and Memorized Images.</p> <p>2) M-MODE SPECIFICATION:</p> <p>1. Magnification: X2 or more.</p> <p>2. Sweep Speed: Slow, Medium and Fast.</p> <p>3. Color Display of M-Mode.</p> <p>3) MODE SPECIFICATION:</p> <p>1. Pulse-Wave Doppler Measurable Velocity Range.</p> <p>2. HPRF Doppler.</p> <p>3. Colorized Spectrum Display.</p> <p>4. Automatic Baseline and Velocity Range Control.</p> <p>5. Live Measurements for Doppler Spectrum</p> <p>4) COLOR DOPPLER MODE SPECIFICATIONS:</p>	01

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	<p>1. PW Doppler must be Continuous Steerable in the Color Blood Flow Image Mode in Real Time.</p> <p>2. 2D Image with Color, and PW Doppler</p> <p>3. Windows based System for easy usage with Programmable Control Panel Keys.</p> <p>4. Tissue Harmonic Imaging with 4THI or more Frequency.</p> <p>5. Power Doppler.</p> <p>6. Triplex Mode for Simultaneous Display of Color B/M and D-Mode Displays.</p> <p>7. 250 db system dynamic range or more.</p> <p>5) MEASUREMENT PACKAGE:</p> <p>1. To provide Comprehensive Software Package for Measurement of Distance, Circumference, Area, Time Depth, ANGLE, Velocity, Frequency, Heart Rate, Volumes, Auto Nuchal Thickness Measurement Software to be Provided as a Standard.</p> <p>6) SYSTEM COMPLETE WITH FOLLOWING FACILITIES AND ACCESSORIES:</p> <p>1. 19-Inches or more LED Color Monitor, with Resolution 1920 x 1080 Pixels minimum.</p> <p>2. Foot-Switch.</p> <p>3. 3 or more Active Transducer Connector for Tran thoracic Probes DVD / CD Drive for Image</p> <p>4. Storage to be Built-in to the System.</p> <p>5. 500 GB or more Hard Disk Drive to be Built-in to the System.</p> <p>6. Built-in DICOM Compatibility.</p> <p>7. Touch Command Screen Control at least 8 inches or more LCD / TFT.</p> <p>7) STANDARD PROBES:</p> <p>1. 1 – 5 MHz Multi-Frequency Convex Probe for B/M/CDI/PW.</p> <p>2. 4 - 12 MHz Multi-Frequency Linear Probe for vascular studies.</p> <p>8) STANDARD RECORDING DEVICES:</p> <p>1. Tissue Harmonic imaging without contrast.</p> <p>2. Pure Wave / Pulse Inversion / Differential Tissue Harmonic Imaging or similar.</p> <p>3. Auto Image Optimization / Quick Scan Imaging for Automatic STC / GAIN and Doppler.</p> <p>4. Spectrum Adjustment with Optimal Image Quality by using One Touch Operation.</p> <p>5. B-Flow / Dynamic Flow Imaging / X-Flow / E-Flow clarify for low flow vessels imaging.</p> <p>6. Thyroid imaging reporting and data system (TI-RADS)</p> <p>7. Trapezoid Imaging / Virtual Convex Imaging with Linear Probe.</p> <p>8. Compound / Aplipure Imaging for THI/MView both Frequency Compounding</p> <p>9. Panoramic / SIESCAPE / Vpan / Logic view Imaging with Measurements.</p> <p>ACCESSORIES:</p> <p>1. Thermal Printer 256-Gray scale (Sony, Mitsubishi or equivalent)</p> <p>2. Compatible imported Online UPS with battery backup for at least 30 min backup or more</p> <p>3. 20 High Density / High Glossy thermal paper Rolls</p> <p>FUTURE UPGRADES:</p>	

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	<p>1. The unit should have the capability for up gradation of future software.</p> <p>Demonstration:</p> <p>1. Quoted model demonstration is mandatory in technical approval is subject to satisfactory demonstration.</p> <p>Power Requirement:</p> <p>1. Line voltages: 100-240VAC</p> <p>2. Line Frequency: 50/60 Hz</p> <p>Requirement:</p> <p>Certification:</p> <p>1. System should have Certification FDA 510(k) and CE/JIS/MHLW/JQAO</p> <p>Warranty and Maintenance Period:</p> <p>1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. (UPS with Battery, and all others parts are included).</p> <p>2. PPM must be done according to the OEM criteria in warranty period.</p> <p>3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M.</p> <p>4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M.</p> <p>5. Up-time guarantee during warranty period must be 90-95%.</p> <p>6. Response to breakdown during and after warranty period must be 1-3Hours.</p> <p>7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below;</p> <p>90% → No Down Time</p> <p>Below 90% → 1.5 days increase daily</p> <p>Below 75% → 3.5 days increase daily</p> <p>Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <p>1. Operating and service manual with troubleshooting and circuit diagram must be provided.</p> <p>2. In house operator training session for end user.</p> <p>3. In house service training session by Principal Certified resource</p> <p>4. Trained Service Engineers with certification from the principle, Karachi based mandatory.</p> <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p>	

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21.	<p>PORTABLE OPERATION THEATER LIGHT:</p> <p>Specifications:</p> <ol style="list-style-type: none"> 1. Unit should have Clarity of vision, optimum performance 2. Unit should have Concentrated light source 3. Unit should have Patented, proven reflector technology 4. Unit should have No color deterioration 5. Unit should have Cool light 6. Unit should be User-friendly 7. Unit should have Optimum hygiene 8. Unit should have Ultra-reliable lighting 9. Unit should have Safety glass for best possible clarity. 10. Unit Should Have Sterilize-able and Remove-able Handles 11. Unit Should have dust protection 12. Should have light intensity of main light 120,000 lux 13. Should have Color temperature adjustment 3500 - 5500 Kelvin 14. Should have Electric field adjustment. 15. Should have Focusable light field size d10 at 1m of light should be 180 mm -300 mm or better 16. Should have Temperature increase at head height < 1 °c 17. Should have color rendering index to 99 Ra or above. 18. Life time of LED should be 50,000 hours or more. 19. Should have built-in battery backup more than 3 hours or more. 20. Original trolley with flexible arm for height adjustment and two lockable castor. <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <ol style="list-style-type: none"> 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 3 years with maintenance and parts replacement. All the parts are included in the warranty. 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 	05

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	<p>90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: UK / USA / EUROPE / JAPAN OR EQUIVALENT</p>	
22.	<p>PATIENT WARMER (WATER BASED)</p> <p>Patient Warmer whole-body system could be allowed conductive warming therapy. Which can be used in the operating room, pre-op, recovery, emergency department or any department in need of patient warming therapy Unit should have ability to pre-condition the water saves time for the caregiver. Digital display LCD/LED Water Temperature Range: 20°C - 42°C or better (Heating Only) Controller Accuracy: Water Temp: ±1°C or better Water Temperature Display Range: 0°C - 50°C Audible & Visible alarms for over temperature limits. Adult Blanket with Tubing: 60" x 24" or equivalent, Qty. 02 Paeds Blanket with Tubing: 30" x 22" or equivalent, Qty. 02 Mobile Trolley with two lockable castors (imported or local both must be quoted) Complete with all standard accessories Safety: Class 1, Type BF, Defibrillation-proof, IPX4</p> <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <ol style="list-style-type: none"> 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 	11

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	<p>4 Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M.</p> <p>5 Up-time guarantee during warranty period must be 90-95%.</p> <p>6 Response to breakdown during and after warranty period must be 1-3Hours.</p> <p>7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: UK / USA / EUROPE / JAPAN OR EQUIVALENT</p>	
23.	<p>BLOOD / FLUID WARMER</p> <p>Microprocessor controlled for simple operation Digital display LCD/LED Temperature Setting: 39°C to 43°C Preheat Time <2 min or better Over temperature safety cutoff Visual & Acoustic Over-temperature & Under-temperature alarms Flow Rate: Standard (Low to Rapid Flow rate) Alarm Temperature: Standard (Visual and Acoustic) Heat Exchanger: Dry Operating mode: Continuous operation, 24hrs a day continuous duty No special disposable required Standard tube size 4mm or equivalent can be attached and should not be brand specified Safety: Class 1, Type BF, Defibrillation-proof, IPX4 Heat protection sleeve should be provided: To protect from the environmental effect.</p>	11

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <ol style="list-style-type: none"> 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier.</p> <p>COUNTRY OF ORIGIN: UK / USA / EUROPE / JAPAN OR EQUIVALENT</p>	
24.	<p>PHACOEMULSIFICATION MACHINE</p> <p>Modes: Pulse, Continuous, Burst</p> <p>Maximum oscillation 100%</p>	01

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>Resonant Frequency: 40.0 ± 3 kHz</p> <p>VACUUM & ASPIRATION</p> <p>Vacuum: 0 to 650 mmHg or better</p> <p>Aspiration: Up to 60 cc per minute (ml/minute) or better</p> <p>POWER IV POLE ON MOBILE CART</p> <p>High Range: 30 to 100cm or better</p> <p>ANTERIOR VITRECTOMY</p> <p>Cut Rate: 10 to 1500 cuts/minute or better</p> <p>DIATHERMY (COAGULATION)</p> <p>10 Watts max or better</p> <p>500 kHz ± 5% or better</p> <p>DISPLAY: Digital Display LCD/LED</p> <p>ACCESSORIES:</p> <p>Phaco Handpiece x 02, Tips, sleeve, Tubing set, Diathermy reusable bipolar cable, Bipolar forceps, Sterilization tray and all other standard accessories.</p> <p>Power Requirement:</p> <ol style="list-style-type: none"> 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz <p>Requirement:</p> <p>Certification:</p> <ol style="list-style-type: none"> 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO <p>Warranty and Maintenance Period:</p> <ol style="list-style-type: none"> 1. Warranty Period required 5 years with maintenance and parts replacement. All the parts are included in the warranty. 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: <p>If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below;</p> <p>90% → No Down Time</p> <p>Below 90% → 1.5 days increase daily</p> <p>Below 75% → 3.5 days increase daily</p> <p>Below 50% → 5 days increase daily</p> <p>Trainings & Manual:</p> <ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be 	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>provided.</p> <ol style="list-style-type: none"> 2 In house operator training session for end user. 3 In house service training session by Principal Certified resource 4 Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier. COUNTRY OF ORIGIN: UK / USA / EUROPE / JAPAN OR EQUIVALENT</p>	
25.	<p>DRILL SET FOR NEUROSURGERY</p> <p>CONTROL UNIT CONTROL UNIT with irrigation pump Digital display LCD/LED, power cord, irrigation rack Pump flow 10 - 100 ml / min or better 100 - 240 V AC; 50 / 60 Hz</p> <p>FOOT PEDAL Foot control pedal with cable (4.0 m long or better) Protection type IPX8 Anesthetic proof class AP</p> <p>High Torque Motor & Cable Autoclavable Operating speed: 80000 rpm or better Torque: 5.5 N.cm or better Motor cable (4.0 m long or better)</p> <p>Straight and Angled attachment Straight Attachment, 85 mm or better Straight Attachment, 105 mm or better Straight Attachment, 125 mm or better Straight Attachment, 165 mm or better Angled Attachment, 105 mm or better Angled Attachment, 125 mm or better Angled Attachment, 145 mm or better Straight and Angled attachment with irrigation nozzle, Bur guard and Bur, Tungsten Ø 2.3 mm</p> <p>Craniotome Attachment Pediatric guide, rotational Adult guide, rotational Guide, laminectomy Drill limit attachment Pediatric craniotome blade Adult craniotome blade Laminectomy craniotome blade</p> <p>Metal cutter Neuro Bur, Ø 1.8 mm or better Neuro Bur, Ø 2.2 mm or better Neuro Bur, Ø 3.0 mm or better</p> <p>PERFORATOR</p>	01

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<p>1100 rpm or better/ 4 Nm or better Motor cable (4.0 m long or better) Hudson connection Trepan (Ø 6/9 mm) Trepan (Ø 9/12 mm) Trepan (Ø 12/15 mm) Spray oil Spray nozzle, for attachment Spray nozzle, for motor hand-piece Irrigation tubing set Console irrigation rack Attachment stand Basket with silicone fixations Standard Model lid Standard Model Box Power Requirement: 1. Line voltages: 100-240VAC 2. Line Frequency: 50/60 Hz Requirement: Certification: 1. System should have Certification FDA 510(k)/CE/JIS/MHLW/JQAO Warranty and Maintenance Period: 1. Warranty Period required 3 years with maintenance and parts replacement. All the parts including (Battery, and all others parts like attachments, hand piece, motor, cable and etc. are included). 2. PPM must be done according to the OEM criteria in warranty period. 3. Service support and parts availability upcoming next ten years after installation of quoted model must be ensure via a separate letter by O.E.M. 4. Required surety of service support and parts from the manufacturer, in case of transfer agency / distributor via undertaking by O.E.M. 5. Up-time guarantee during warranty period must be 90-95%. 6. Response to breakdown during and after warranty period must be 1-3Hours. 7. Down Time: If equipment is malfunctioning or not working properly then down time period would start i.e., if machine remain out of order for more than one day; then one and half day increase in contract of concerned equipment will be charged but if any part required from manufacturer, then downtime period not calculated for a month but after a month the down time should be calculated, are mentioned below; 90% → No Down Time Below 90% → 1.5 days increase daily Below 75% → 3.5 days increase daily Below 50% → 5 days increase daily Trainings & Manual:</p>	

S.NO.	NAME AND SPECIFICATION OF ITEMS	U.O.M
	<ol style="list-style-type: none"> 1. Operating and service manual with troubleshooting and circuit diagram must be provided. 2. In house operator training session for end user. 3. In house service training session by Principal Certified resource 4. Trained Service Engineers with certification from the principle, Karachi based mandatory. <p>Note: Supply, Installation, Testing, Commissioning and Maintenance (Including all type of work for the completion of the installation) is the responsibility of awarded firm/supplier. COUNTRY OF ORIGIN: UK / USA / EUROPE / JAPAN OR EQUIVALENT</p>	

Note:

- Warranty period must be given with offer if the replacement of parts, equipment is out of order during the warranty period the same will be replace without charging any cost by the concerned firm.
- The required items will be purchased on best quality / approved sample basis (CE marked/ FDA/ JIS / JQAO approved certificate should be attached (where applicable); for verification from concerned authority.
- Financial proposal must be submitted on company letter head duly signed and stamped. Bidder is required to type their offer in figure and as well as in words of the total amount; else the offer would be rejected.

Signature of Manufacturers /Importers/Sole Agents/Contractors _____

Name of Medical Store _____

Full Address _____

Telephone No. Office _____ Cell No:- _____

Email Address (if any) _____

BID LETTER FORM

From:

(Registered name and address of the bidder)

To:

Chief Operating Officer,

Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi –74200

Dear Sir,

Having examined the bidding document and amendment thereon we undersigned, offer to provide services to the works including in conformity with the terms and conditions of the bidding document and amendments there on, for the following project in response to your tender call dated

Tender Title: _____

We undertake to provide services/execute the above project or it part assigned to us in conformity with the said bidding documents for an estimated sum of Rs. (Rupees)(total bid amount in words and figures) which may vary in accordance with the schedule of prices attached herewith and coverage options made by SMBBIT or its user organization.

If our bid is accepted, we undertake to;

- 1) Provide services/execute the work according to the time schedule specified in the bid document,
- 2) Obtain the performance guarantee of bank in accordance with bid requirements for the due performance of the contract, and
- 3) Agree to abide by the bid conditions, including pre-bid meeting minutes if any, which remain binding upon us during the entire bid validity period and bid may be accepted any time before the expiration of that period.
- 4) We understand that you are not bound to accept the lowest or any bid you may receive, nor to give any reason for the rejection of any bid and that you will not defray any expenses incurred by us in bidding.

Place:
signature

Date:

Bidder's

and seal.

CONTRACT FORM

THIS AGREEMENT made theDay of.....(year) Between the Procuring Agency (hereinafter “The SMBB INSTITUTE OF TRAUMA”) of one part and (Name of Vendor) of (City and country of Vendor) (Hereinafter “the Supplier”) of the other part:

WHEREAS the SMBB INSTITUTE OF TRAUMA is desirous that certain Supplies, as described in the bid document and briefly outlined below, should be provided by the Vendor.

Date of tender call:

Title of the project:

Brief outline of the work:

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS;

In this agreement words and expression shall have the same meanings as are respectively assigned to them in the bid document referred to.

The following document shall be deemed to form and be read and construed as part of this Contract, viz.

- 1) Bid document(s)
- 2) Pre-bid conference minutes (if any),
- 3) Clarification on bid document issued (if any),
- 4) SMBB INSTITUTE OF TRAUMA notification of award.

In case of conflict among documents mentioned above, the documents mentioned above in reverse order will prevail over other documents. In consideration of the payments to be made by the SMBB INSTITUTE OF TRAUMA to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the SMBB INSTITUTE OF TRAUMA to (**Tender Title..**) and to remedy defects therein conformity, in all respects, with the provisions of the contract.

The SMBB INSTITUTE OF TRAUMA hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the contract price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

Brief particulars of the services which shall be supplied / provided by the Supplier areas under:

Solutions, service or material	Quantity	Unit price	Amount	Remarks

IN WITNESS whereof the parties hereto have caused this Agreement executed the day and year above written.

Signed, sealed, delivered by _____ the (for the Procuring agency)

Signed, sealed, delivered by _____ the (for the Supplier)

FORM OF PERFORMANCE SECURITY

(Bank Guarantee)

Guarantee No. _____ Executed on: Expiry date: _____

[Letter by the Guarantor to the Employer]

Name of Guarantor (Bank) with complete address (Scheduled Bank in Pakistan):

Name of Principal (Contractor, Manufacturer, Supplier or any bidder) with complete address:

Penal Sum of Security (express in words and figures):

Letter of Acceptance No: _____ Dated: _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the are of the said Principal we, the Guarantor above named, are held and firmly bound unto the Chief Operating Officer (COO), SMBBIT, Karachi (here in after called the Employer) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Employer, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the principal has accepted the Employer's above said Letter of Acceptance for (Name of Contract) for the _____ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents- during the original terms of the said Documents and any extensions thereof that may be granted by the Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modificationstotheGuarantorbeingherebywaived,then,thisobligationtobevoid;otherwiseto remain in full force and virtue till all requirements of Condition of Contract are fulfilled.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, _____ (the Guarantor), waiving all objections and defences under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer without delay upon the Employer's first written demand without cavil or arguments and without requiring the Employer to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's written declaration

that the principal has refused or failed to perform the obligations under the Contract which payment will be affected by the Guarantor to Employer's designated Bank & Account Number.

PROVIDED ALSO THAT the Employer shall be the sole and final judge for deciding whether the principal(Contractor) has duly performed his obligations under the Contractor has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Employer forthwith and without any reference to the principal or any other person.

IN WITNESS WHEREOF, the above-bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Witness:

Guarantor
(Bank)

1. _____ (Name, Title, Signature & Seal)

Signature:

2. _____
(Name, Title, Signature Seal)

Name: _____
Title: _____

**AFFIDAVIT
(On Judicial Stamp Paper)**

I/We, the undersigned [Name of the Supplier] hereby solemnly declare and undertake that:

1. I/We have read the contents of the Bidding Document and have fully understood it.
2. The Bid being submitted by the undersigned complies with the requirements enunciated in the bidding documents.
3. The Goods that we propose to supply under this contract are eligible goods within the meaning of this SBD.
4. The undersigned are also eligible Bidders within the meaning of the Standard Bidding Documents.
5. The undersigned are solvent and competent to undertake the subject contract under the Laws of Pakistan.
6. I/We have not paid nor have agreed to pay, any Commissions or Gratuities to any official or agent for SMBB Institute of Trauma related to this Bid or Award or Contract.
7. I/We are not blacklisted or facing debarment from any institute of Federal, Provincial Government or any Department /Agency/Organization/Autonomous body or Private Sector organization anywhere in Pakistan.
8. That undersigned has not employed any child labor in the organization/unit.
9. I/We understand that the Selection and Rate Contracting Committee of the Procuring Agency is not bound to accept the lowest or any other bid they may receive.

I/We affirm that the contents of this affidavit are correct to the best of our knowledge and belief.

Signatures with stamp Name: _____ Designation: _____

CNIC No. _____ (Copy must be attached)

For Messrs. [Name of Supplier]

INTEGRITY PACT

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC PAYABLE BY THE SUPPLIERS/CONTRACTORS/CONSULTANTS

Contract Number:

NO.

Dated:

Contract Value:

Rs.

Contract Title:

M/s. _____ hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoS) through any corrupt business practice.

Without limiting the generality of the foregoing, M/s. _____

represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit, in whatsoever form, SMBBIT Karachi (PA), except that which has been expressly declared pursuant hereto.

M/s. _____ certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with PA and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

M/s. _____ accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to PA under any law, contract or other instrument, be voidable at the option of PA.

Notwithstanding any rights and remedies exercised by PA in this regard, M/s.

_____ Agrees to indemnify PA for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to PA in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by M/s. _____ as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit, in whatsoever form, from PA.

M/s.

Chief Operating Officer (C.O.O)