



**BID SOLICITATION DOCUMENTS (BSDs)**

**UNDER**

**NATIONAL COMPETITIVE BIDDING (NCB) THROUGH EPADS FOR MTI-HMC, KGMC, IKD,  
B&PSC & PICO**

**FOR**

**THE PROCUREMENT, INSTALLATION, TESTING & COMMISSIONING OF MEDICAL  
EQUIPMENT, HOSPITAL FURNITURE, INSTRUMENTS, INFORMATION TECHNOLOGY  
ITEMS/EQUIPMENT, OFFICE FURNITURE & MICELLANIOUS ITEMS**

**APRIL 2026**

**For**

**ACCIDENT & EMERGENCY PROJECT, DIFFERENT HOSPITAL DEPARTMENTS OF MTI-HMC  
& AFFILIATED INSTITUTIONS PESHAWAR, GOVERNMENT OF KHYBER PAKHTUNKHWA**

## **PREFACE**

These bid solicitation documents are prepared for the procurement, installation, testing & commissioning of medical equipment, instruments, hospital furniture, office furniture & miscellaneous items for the financial year 2026-27 under Framework Agreement covered under KPPRA rules 2014 and Act 2012 as amended from time to time.

The Bid Solicitation Documents are grouped in two parts based on provisions which would remain the same for every procurement and that which are specific for each procurement. Provisions which are intended to be used unchanged are in Part one, which includes Section I, Instructions to Bidders, and Section II, General Conditions of Contract. Data and provisions specific to each procurement and contract are included in Part Two which is further organized into six sections. Sections I, II, III, IV, and V, respectively contain Invitation for Bids; Bid Data Sheet; Special Conditions of Contract; Schedule of Requirements; Technical Specifications; and the forms to be used, while Section VI is about Sample Forms.

Efforts are made here to make the document flawless, however in case of any errors or mistakes and queries, the bidders are expected to highlight it in the pre-bid meeting / conference for rectification alignment of the document. Furthermore, the manufacturers /suppliers can share the literature for advance Technological development in medical equipment as a futuristic activity in order to enhance the specifications accordingly. Proper submission of the bid is highly appreciated.

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Part One - Section I.  
Instructions to Bidders

**Notes on the Instructions to Bidders**

This section of the Bid Solicitation Documents provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, opening, and evaluation, and on the award of contract.

Part One Section I contains provisions that are to be used unchanged. Part Two Section II (Bid Data Sheet) consists of provisions that supplement, amend, or specify in detail information or requirements included in Part One Section I and which are specific to each procurement.

Matters governing the performance of the Supplier, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are not normally included in this section, but rather under Part one Section II, General Conditions of Contract, and/or Part Two Section III, Special Conditions of Contract. If duplication of a subject is inevitable in the other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

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## Instructions to Bidders

### A. Introduction

<b>1. Source of Funds</b>	1.1	The Procuring Entity has received/applied for loan/grant/federal/provincial/local government funds from the source(s) indicated in the bidding data in various currencies towards the cost of the project /schemes specified in the bidding data and it is intended that part of the proceeds of this loan/grant/funds/ will be applied to eligible payments under the contract for which these Bid Solicitation Documents are issued.
	1.2	The funds referred to above in addition shall be “Public Fund” which according to 2 (l) of KPP Rules 2014 means ( i ) Provincial Consolidated Fund; ( ii) foreign assistance; ( iii) all moneys standing in the Public Account; and (iv) Funds of enterprises wholly or partly owned or managed or controlled by Government.
	1.3	Payment by the Fund will be made only at the request of the Procuring Entity and upon approval by the Government of Khyber Pakhtunkhwa., and in case of a project will be subject in all respect to the terms and conditions of the agreement. The Project Agreement prohibits a withdrawal from the allocated fund account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Federal Government/ Khyber Pakhtunkhwa Government, is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Procuring Entity shall derive any rights from the Project Agreement or have any claim to the allocated fund proceeds.
<b>2. Eligible Bidders</b>	2.1	This Invitation for Bids is open to all suppliers from eligible source as defined in the KPP Rules, 2014 and its Bid Solicitation Documents except as provided hereinafter.
	2.2	Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Procuring Entity to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation for Bids.
	2.3	Government-owned enterprises in the Province of Khyber Pakhtunkhwa may participate only if they are legally and financially autonomous, if they operate under commercial law, and if they are not a dependent agency of the Government of Khyber Pakhtunkhwa.
	2.4	The bidder shall submit an affidavit that his firm is not in blacklist of the concerned procuring entity.
<b>3. Eligible Goods and Services</b>	3.1	All goods and related services to be supplied under the contract shall have their origin in eligible source countries of the world with whom the Islamic Republic of Pakistan has commercial relations and its Bid Solicitation Documents and all expenditures made under the contract will be limited to such goods and services.

	3.2	For purposes of this clause, “origin” means the place where the goods are mined, grown, or produced, or the place from which the related services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially-recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.
	3.3	The origin of goods and services is distinct from the nationality of the Bidder.
<b>4. Cost of Bidding</b>	4.1	The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Procuring Entity named in the Bid Data Sheet, hereinafter referred to as “the Procuring Entity,” will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
		<b>B. The Bid Solicitation Documents</b>
<b>5. Content of Bidding Documents</b>	5.1	The Bid Solicitation Documents include: <ul style="list-style-type: none"> <li>a) Instructions to Bidders (ITB)</li> <li>b) Bid Data Sheet</li> <li>c) General Conditions of Contract (GCC)</li> <li>d) Special Conditions of Contract (SCC)</li> <li>e) Schedule of Requirements</li> <li>f) Technical Specifications</li> <li>g) Bid Form and Price Schedules</li> <li>h) Bid Security Form</li> <li>i) Contract Form</li> <li>j) Performance Security Form</li> <li>k) Manufacturer’s Authorization Form</li> </ul>
	5.2	The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bid Solicitation Documents. Failure to furnish all information required by the Bid Solicitation Documents or to submit a bid not substantially responsive to the Bid Solicitation Documents in every respect will be at the Bidder’s risk and may result in the rejection of its bid.
<b>6. Clarification of Bid Solicitation Documents</b>	6.1	A interested Bidder requiring any clarification of the Bid Solicitation Documents may notify the Procuring Entity in writing. The Bidding Procuring Entity will respond in writing to any request for Documents clarification of the Bid Solicitation Documents which it receives no later than three working days prior to the deadline for the submission of bids prescribed in the Bid Data Sheet. Written copies of the Procuring Entity’s response (including an explanation of the query but without identifying the source of inquiry) will be sent to all interested bidders that have received the Bid Solicitation Documents.
<b>7. Amendment of Bidding Documents</b>	7.1	At any time prior to the deadline for submission of bids, the Procuring Entity, for any reason, whether at its own initiative or in response to a clarification requested by a interested Bidder, may modify the Bid Solicitation Documents by amendment.
	7.2	All interested bidders that have received the Bid Solicitation Documents will be notified of the amendment in writing, and will be binding on them.

	7.3	In order to allow interested bidders reasonable time in which to take the amendment into account in preparing their bids, the Procuring Entity, at its discretion, may extend the deadline for the submission of bids.
		<b>C. Preparation of Bids</b>
<b>8. Language of Bid</b>	8.1	The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Procuring Entity shall be written in the language specified in the Bid Data Sheet. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the Bid Data Sheet, in which case, for purposes of interpretation of the Bid, the translation shall govern.
<b>9. Documents Comprising the Bid</b>	9.1	The bid prepared by the Bidder shall comprise the following components: <ul style="list-style-type: none"> <li>a) a Bid Form and a Price Schedule completed in accordance with ITB Clauses 10, 11, and 12</li> <li>b) documentary evidence established in accordance with ITB Clause 13 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;</li> <li>c) documentary evidence established in accordance with ITB Clause 14 that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the Bid Solicitation Documents; and</li> <li>d) bid security furnished in accordance with ITB Clause 15.</li> </ul>
<b>10. Bid Form</b>	10.1	The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the Bid Solicitation Documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.
<b>11. Bid Prices</b>	11.1	The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total bid price of the goods it proposes to supply under the contract.
	11.2	Prices indicated on the Price Schedule shall be delivered duty paid (DDP) prices. The price of other (incidental) services, if any, listed in the Bid Data Sheet will be entered separately.
	11.3	The Bidder's separation of price components in accordance with ITB Clause 11.2 above will be solely for the purpose of facilitating the comparison of bids by the Procuring Entity and will not in any way limit the Procuring Entity's right to contract on any of the terms offered.
	11.4	Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account, unless otherwise specified in the Bid Data Sheet. A bid submitted with an adjustable price quotation will be treated as nonresponsive and will be rejected, pursuant to ITB Clause 24. If, however, in accordance with the Bid Data Sheet, prices quoted by the Bidder shall be subject to adjustment during the performance of the contract, a bid submitted with a fixed price quotation will not be rejected, but the price adjustment would be treated as zero.
<b>12. Bid Currencies</b>	12.1	Prices shall be quoted in Pak Rupees unless otherwise specified in the Bid Data Sheet.
<b>13. Documents</b>	13.1	Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid,

<b>Establishing Bidder's</b>		documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted.
<b>Eligibility and Qualification</b>	13.2	The documentary evidence of the Bidder's eligibility to bid shall establish to the Procuring Entity's satisfaction that the Bidder, at the time of submission of its bid, is from an eligible country as defined under ITB Clause 3.
	13.3	<p>The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Procuring Entity's satisfaction:</p> <ul style="list-style-type: none"> <li>a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer or producer to supply the goods in the Procuring Entity's country;</li> <li>b) that the Bidder has the financial, technical, and production capability necessary to perform the contract;</li> <li>c) that, in the case of a Bidder not doing business within the Procuring Entity's country, the Bidder is or will be (if awarded the contract) represented by an Agent in that country equipped, and able to carry out the Supplier's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and</li> <li>d) that the Bidder meets the qualification criteria listed in the Bid Data Sheet.</li> </ul>
<b>14. Documents Establishing Goods' Eligibility and Conformity to Bidding Documents</b>	14.1	Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the Bid Solicitation Documents of all goods and services which the Bidder proposes to supply under the contract.
	14.2	The documentary evidence of the eligibility of the goods and services shall consist of a statement in the Price Schedule of the country of origin of the goods and services offered which shall be confirmed by a certificate of origin issued at the time of shipment.
	14.3	<p>The documentary evidence of conformity of the goods and services to the Bid Solicitation Documents may be in the form of literature, drawings, and data, and shall consist of:</p> <ul style="list-style-type: none"> <li>a) a detailed description of the essential technical and performance characteristics of the goods;</li> <li>b) a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period to be specified in the Bid Data Sheet, following commencement of the use of the goods by the Procuring Entity; and</li> <li>c) an item-by-item commentary on the Procuring Entity's</li> </ul>

		Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications.
	14.4	For purposes of the commentary to be furnished pursuant to ITB Clause 14.3(c) above, the Bidder shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Procuring agency in its Technical Specifications, are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names, and/or catalogue numbers in its bid, provided that it demonstrates to the Procuring Entity's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.
<b>15. Bid Security</b>	15.1	Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, a bid security in the amount specified in the Bid Data Sheet. [The bid security shall be submitted from the account of the firm/bidder/contractor who submits the bid] <sup>1</sup>
	15.2	The bid security is required to protect the Procuring Entity against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause 15.7.
	15.3	The bid security shall be in Pak. Rupees and shall be in one of the following forms: <ul style="list-style-type: none"> <li>a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the Procuring Entity's country, in the form provided in the Bid Solicitation Documents or another form acceptable to the Procuring Entity and valid for thirty (30) days beyond the validity of the bid; or</li> <li>b) irrevocable encashable on-demand Bank call-deposit.</li> </ul>
	15.4	Any bid not secured in accordance with ITB Clauses 15.1 and 15.3 will be rejected by the Procuring Entity as non-responsive, pursuant to ITB Clause 24.
	15.5	Unsuccessful bidders' bid security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity prescribed by the Procuring Entity pursuant to ITB Clause 16.
	15.6	The successful Bidder's bid security will be discharged upon the Bidder signing the contract, pursuant to ITB Clause 32, and furnishing the performance security, pursuant to ITB Clause 33.
	15.7	The bid security may be forfeited: <ul style="list-style-type: none"> <li>a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or</li> <li>b) in the case of a successful Bidder, if the Bidder fails: <ul style="list-style-type: none"> <li>i. to sign the contract in accordance with ITB Clause 32;</li> </ul> </li> </ul> <p style="text-align: center;">or</p> <ul style="list-style-type: none"> <li>ii. to furnish performance security in accordance with ITB Clause 33.</li> </ul>

<b>16. Period of Validity of Bids</b>	16.1	Bids shall remain valid for the period specified in the Bid Data Sheet after the date of bid opening prescribed by the Procuring Entity, pursuant to ITB Clause 19. A bid valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.
	16.2	In exceptional circumstances, the Procuring Entity may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security provided under ITB Clause 15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid, except as provided in the bidding document.
<b>17. Format and Signing of Bid</b>	17.1	The Bidder shall prepare an original and the number of copies of the bid indicated in the Bid Data Sheet, clearly marking each "ORIGINAL BID" and "COPY OF BID," as appropriate. In the event of any discrepancy between them, the original shall govern.
	17.2	The original and the copy or copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.
	17.3	Any interlineations, erasures, or overwriting shall be valid only if they are initialed by the person or persons signing the bid.
	17.4	The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract.
		<b>D. Submission of Bids</b>
<b>18. Sealing and Marking of Bids</b>	18.1	The Bidder shall seal the original and each copy of the bid in separate envelopes, duly marking the envelopes as "ORIGINAL" and "COPY." The envelopes shall then be sealed in an outer envelope.
	18.2	The inner and outer envelopes shall: <ul style="list-style-type: none"> <li>a. be addressed to the Procuring Entity at the address given in the Bid Data Sheet; and</li> <li>b. bear the Project name indicated in the Bid Data Sheet, the Invitation for Bids (IFB) title and number indicated in the Bid Data Sheet, and a statement: "DO NOT OPEN BEFORE," to be completed with the time and the date specified in the Bid Data Sheet, pursuant to ITB Clause 2.2.</li> </ul>
	18.3	The inner envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared "late".
	18.4	If the outer envelope is not sealed and marked as required by ITB Clause 18.2, the Procuring Entity will assume no responsibility for the bid's misplacement or premature opening.
<b>19. Deadline for Submission of Bids</b>	19.1	Bids must be received by the Procuring Entity at the address specified under ITB Clause 18.2 no later than the time and date specified in the Bid Data Sheet.
	9.2	The Procuring Entity may, at its discretion, extend this deadline for the submission of bids by amending the Bid Solicitation Documents in accordance with ITB Clause 7, in which case all rights and obligations of the Procuring Entity and bidders previously subject to

		the deadline will thereafter be subject to the deadline as extended.
<b>20. Late Bids</b>	20.1	Any bid received by the Procuring Entity after the deadline for submission of bids prescribed by the Procuring Entity pursuant to ITB Clause 19 will be rejected and returned unopened to the Bidder.
<b>21. Modification And Withdrawal of Bids</b>	21.1	The Bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification, including substitution or withdrawal of the bids, is received by the Procuring Entity prior to the deadline prescribed for submission of bids.
	21.2	The Bidder's modification or withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of ITB Clause 18. by a signed confirmation copy, postmarked not later than the deadline for submission of bids.
	21.3	No bid may be modified after the deadline for submission of bids.
	21.4	No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security, pursuant to the ITB Clause 15.7.
		<b>E. Opening and Evaluation of Bids</b>
<b>22. Opening of Bids by the Procuring agency</b>	22.1	The Procuring Entity will open all bids in the presence of bidders' representatives who choose to attend, at the time, on the date, and at the place specified in the Bid Data Sheet. The bidders' representatives who are present shall sign a register evidencing their attendance.
	22.2	The bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presence or absence of requisite bid security and such other details as the Procuring Entity, at its discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the Bidder pursuant to ITB Clause 20.
	22.3	Bids (and modifications sent pursuant to ITB Clause 21.2) that are not opened and read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances. Withdrawn bids will be returned unopened to the bidders.
	22.4	The Procuring Entity will prepare minutes of the bid opening.
<b>23. Clarification of Bids</b>	23.1	During evaluation of the bids, the Procuring Entity may, at its discretion, ask the Bidder for a clarification of its bid. The Bids request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.
<b>24. Preliminary Examination</b>	24.1	The Procuring Entity will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
	24.2	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.

	24.3	The Procuring Entity may waive any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.
	24.4	Prior to the detailed evaluation, pursuant to ITB Clause 25 the Procuring Entity will determine the substantial responsiveness of each bid to the Bid Solicitation Documents. For purposes of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the Bid Solicitation Documents without material deviations. Deviations from, or objections or reservations to critical provisions, such as those concerning Bid Security (ITB Clause 15), Applicable Law (GCC Clause 30), and Taxes and Duties (GCC Clause 32), will be deemed to be a material deviation. The Procuring Entity's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
	24.5	If a bid is not substantially responsive, it will be rejected by the Procuring Entity and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
<b>25. Evaluation and Comparison of Bids</b>	25.1	The Procuring Entity will evaluate and compare the bids which have been determined to be substantially responsive, pursuant to ITB Clause 24.
	25.2	The Procuring Entity's evaluation of a bid will be on delivered duty paid (DDP) price inclusive of prevailing duties and will exclude any allowance for price adjustment during the period of execution of the contract, if provided in the bid.
	25.3	The Procuring Entity's evaluation of a bid will take into account, in addition to the bid price quoted in accordance with ITB Clause 11.2, one or more of the following factors as specified in the Bid Data Sheet, and quantified in ITB Clause 25.4: <ul style="list-style-type: none"> <li>a. incidental costs</li> <li>b. delivery schedule offered in the bid;</li> <li>c. deviations in payment schedule from that specified in the Special Conditions of Contract;</li> <li>d. the cost of components, mandatory spare parts, and service;</li> <li>e. the availability Procuring Entity of spare parts and after-sales services for the equipment offered in the bid;</li> <li>f. the projected operating and maintenance costs during the life of the equipment; the performance and productivity of the equipment offered; and/or</li> <li>g. other specific criteria indicated in the Bid Data Sheet and/or</li> <li>h. in the Technical Specifications.</li> </ul>
	25.4	For factors retained in the Bid Data Sheet pursuant to ITB 25.3, one or more of the following quantification methods will be applied, as detailed in the Bid Data Sheet: <ul style="list-style-type: none"> <li>a. Incidental costs provided by the bidder will be added by Procuring Entity to the delivered duty paid (DDP) price at the final destination.</li> <li>b. Delivery schedule. <ul style="list-style-type: none"> <li>i. The Procuring Entity requires that the goods under the Invitation for Bids shall be delivered at the time specified in the Schedule of Requirements which will be treated as the base, a delivery "adjustment" will be calculated for bids by applying a percentage, specified in</li> </ul> </li> </ul>

		<p>the Bid Data Sheet, of the DDP price for each week of delay beyond the base, and this will be added to the bid price for evaluation. No credit shall be given to early delivery.</p> <p>or</p> <p>ii. The goods covered under this invitation are required to be delivered (shipped) within an acceptable range of weeks specified in the Schedule of Requirement. No credit will be given to earlier deliveries, and bids offering delivery beyond this range will be treated as non-responsive. Within this acceptable range, an adjustment per week, as specified in the Bid Data Sheet, will be added for evaluation to the bid price of bids offering deliveries later than the earliest delivery period specified in the Schedule of Requirements.</p> <p>or</p> <p>iii. The goods covered under this invitation are required to be delivered in partial shipments, as specified in the Schedule of Requirements. Bids offering deliveries earlier or later than the specified deliveries will be adjusted in the evaluation by adding to the bid price a factor equal to a percentage, specified in the Bid Data Sheet, of DDP price per week of variation from the specified delivery schedule.</p> <p>c. Deviation in payment schedule:</p> <p>i. Bidders shall state their bid price for the payment schedule outlined in the SCC. Bids will be evaluated on the basis of this base price. Bidders are, however, permitted to state an alternative payment schedule and indicate the reduction in bid price they wish to offer for such alternative payment schedule. The Procuring Entity may consider the alternative payment schedule offered by the selected Bidder.</p> <p>or</p> <p>ii. The SCC stipulates the payment schedule offered by the Procuring Entity. If a bid deviates from the schedule and if such deviation is considered acceptable to the Procuring Entity, the bid will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the bid as compared with those stipulated in this invitation, at the rate per annum specified in the Bid Data Sheet.</p> <p>d. <b>Cost of spare parts.</b></p> <p>i. The list of items and quantities of major assemblies, components, and selected spare parts, likely to be required during the initial period of operation specified in the Bid Data Sheet, is annexed to the Technical Specifications. The total cost of these items, at the unit prices quoted in each bid, will be added to the bid price.</p> <p>or</p>
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	<p>ii. The Procuring Entity will draw up a list of high-usage and high-value items of components and spare parts, along with estimated quantities of usage in the initial period of operation specified in the Bid Data Sheet. The total cost of these items and quantities will be computed from spare parts unit prices submitted by the Bidder and added to the bid price.</p> <p>or</p> <p>iii. The Procuring Entity will estimate the cost of spare parts usage in the initial period of operation specified in the Bid Data Sheet, based on information furnished by each Bidder, as well as on past experience of the Procuring Entity or other procuring Entity in similar situations. Such costs shall be added to the bid price for evaluation.</p> <p>e. Spare parts and after sales service facilities in the Procuring Entity's country.</p> <p>The cost to the Procuring Entity of establishing the minimum service facilities and parts inventories, as outlined in the Bid Data Sheet or elsewhere in the Bid Solicitation Documents, if quoted separately, shall be added to the bid price.</p> <p>f. Operating and maintenance costs.</p> <p>Since the operating and maintenance costs of the goods under procurement form a major part of the life cycle cost of the equipment, these costs will be evaluated in accordance with the criteria specified in the Bid Data Sheet or in the Technical Specifications.</p> <p>g. Performance and productivity of the equipment.</p> <p>i. Bidders shall state the guaranteed performance or efficiency in response to the Technical Specification. For each drop in the performance or efficiency below the norm of 100, an adjustment for an amount specified in the Bid Data Sheet will be added to the bid price, representing the capitalized cost of additional operating costs over the life of the plant, using the methodology specified in the Bid Data Sheet or in the Technical Specifications.</p> <p>or</p> <p>ii. Goods offered shall have a minimum productivity specified under the relevant provision in the Technical Specifications to be considered responsive. Evaluation shall be based on the cost per unit of the actual productivity of goods offered in the bid, and adjustment will be added to the bid price using the methodology specified in the Bid Data Sheet or in the Technical Specifications.</p> <p>h. Specific additional criteria indicated in the Bid Data Sheet and/or in the Technical Specifications.</p> <p>The relevant evaluation method shall be detailed in the Bid Data</p>
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		Sheet and/or in the Technical Specifications.	
<b>Alternative</b>	25.4	25.4 Merit Point System:	
		The following merit point system for weighing evaluation factors can be applied if none of the evaluation methods listed in 25.4 above has been retained in the Bid Data Sheet. The number of points allocated to each factor shall be specified in the Bid Data Sheet.	
		[In the Bid Data Sheet, choose from the range of]	
		Evaluated price of the goods	60 to 90
		Cost of common list spare parts	0 to 20
		Technical features, and maintenance and operating costs	0 to 20
		Availability of service and spare parts	0 to 20
		Standardization	0 to 20
		Total	100
		The bid scoring the highest number of points will be deemed to be the lowest evaluated bid.	
<b>26. Contacting the Procuring agency</b>	26.1	Subject to ITB Clause 23, no Bidder shall contact the Procuring Entity 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 Entity, it should do so in writing.	
	26.2	Any effort by a Bidder to influence the Procuring Entity in its decisions on bid evaluation, bid comparison, or contract award may result in the rejection of the Bidder's bid.	
		<b>F. Award of Contract</b>	
<b>27. Post-qualification</b>	27.1	In the absence of prequalification, the Procuring Entity will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 13.3.	
	27.2	The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 13.3, as well as such other information as the Procuring Entity deems necessary and appropriate.	
	27.3	An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Procuring agency will proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.	
<b>28. Award Criteria</b>	28.1	Subject to ITB Clause 30, the Procuring Entity will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.	

<b>29. Procuring agency's Right to Vary Quantities at Time of Award</b>	29.1	The Procuring Entity reserves the right at the time of contract award to increase or decrease, by the percentage indicated in the Bid Data Sheet, the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
<b>30. Procuring agency's Right to Accept any Bid and to Reject any or All Bids</b>	30.1	The procuring entity may reject all bids or proposals at any time prior to the acceptance of a bid or proposal specifying the grounds for rejection of bids.
<b>31. Notification of Award</b>	31.1	Prior to the expiration of the period of bid validity, the Procuring Entity will notify the successful Bidder in writing by registered letter or by cable, to be confirmed in writing by registered letter, that its bid has been accepted.
	31.2	The notification of award will constitute the formation of the Contract.
	31.3	Upon the successful Bidder's furnishing of the performance security pursuant to ITB Clause 33, the Procuring Entity will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to ITB Clause 15.
<b>32. Signing of Contract</b>	32.1	At the same time as the Procuring Entity notifies the successful Bidder that its bid has been accepted, the Procuring Entity will send the Bidder the Contract Form provided in the Bid Solicitation Documents, incorporating all agreements between the parties.
	32.2	Within thirty (30) days of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the Procuring Entity.
<b>33 Performance Security</b>	33.1	Within twenty (20) days of the receipt of notification of award from the Procuring Entity, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the Bid Solicitation Documents, or in another form acceptable to the Procuring Entity.
	33.2	Failure of the successful Bidder to comply with the requirement of ITB Clause 32 or ITB Clause 33.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity may make the award to the next lowest evaluated Bidder or call for new bids.
<b>34. Corrupt or Fraudulent Practices</b>	34.1	<p>The Government of Khyber Pakhtunkhwa requires that Procuring Entity's (including beneficiaries of donor agencies' loans), as well as Bidders/Suppliers/Contractors under Government-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the KPPRA, in accordance with the KPP Act, 2009 and Rules made thereunder:</p> <p>a. defines, for the purposes of this provision, the terms set forth below as follows:</p> <ul style="list-style-type: none"> <li>i. "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and</li> <li>ii. "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the</li> </ul>

		<p>Procuring Entity, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition;</p> <p>b. will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;</p> <p>c. will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a Government-financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government-financed contract.</p>
	34.2	Furthermore, Bidders shall be aware of the provision stated in sub-clause 5.4 and sub-clause 24.1 of the General Conditions of Contract.
<b>36. Integrity Pact</b>	35.1	The Bidder shall sign and stamp the Integrity Pact provided at Form - 7 to Bid in the Bidding Document for all Provincial Government procurement contracts exceeding Rupees ten million. Failure to such Integrity Pact shall make the bidder non-responsive.

Part One - Section II.  
General Conditions of Contract

**Notes on the General Conditions of Contract**

The General Conditions of Contract in Part One Section II, read in conjunction with the Special Conditions of Contract in Part Two Section III and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

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## General Conditions of Contract

<b>1. Definitions</b>	1.1	<p>In this Contract, the following terms shall be interpreted as indicated:</p> <ul style="list-style-type: none"> <li>a. “The Contract” means the agreement entered into between the Procuring Entity and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.</li> <li>b. “The Contract Price” means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.</li> <li>c. “The Goods” means all of the equipment, machinery, and/or other materials which the Supplier is required to supply to the Procuring Entity under the Contract.</li> <li>d. “The Services” means those services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Supplier covered under the Contract.</li> <li>e. “GCC” means the General Conditions of Contract contained in this section.</li> <li>f. “SCC” means the Special Conditions of Contract.</li> <li>g. “The Procuring Entity” means the organization purchasing the Goods, as named in SCC.</li> <li>h. “The Procuring Entity’s country” is the country named in SCC.</li> <li>i. “The Supplier” means the individual or firm supplying the Goods and Services under this Contract.</li> <li>j. “The Project Site,” where applicable, means the place or places named in SCC.</li> <li>k. “Day” means calendar day.</li> </ul>
<b>2. Application</b>	2.1	These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.
<b>3. Country of Origin</b>	3.1	All Goods and Services supplied under the Contract shall have their origin in the countries and territories eligible under the rules and further elaborated in the SCC.
	3.2	For purposes of this Clause, “origin” means the place where the Goods were mined, grown, or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
	3.3	The origin of Goods and Services is distinct from the nationality of the Supplier.
<b>4. Standards</b>	4.1	The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods’ country of origin. Such standards shall be the latest issued by the concerned institution.
<b>5. Use of Contract Documents and</b>	5.1	The Supplier shall not, without the Procuring Entity’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 Entity in connection

<b>Information; Inspection and Audit by the Government</b>		therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
	5.2	The Supplier shall not, without the Procuring Entity's prior written consent, make use of any document or information enumerated in GCC Clause 5.1 except for purposes of performing the Contract.
	5.3	Any document, other than the Contract itself, enumerated in GCC Clause 5.1 shall remain the property of the Procuring Entity and shall be returned (all copies) to the Procuring Entity on completion of the Supplier's performance under the Contract if so required by the Procuring Entity.
	5.4	The Supplier shall permit the Procuring Entity to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the procuring Entity, if so required.
<b>6. Patent Rights</b>	6.1	The Supplier shall indemnify the Procuring Entity 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 Procuring Entity's country.
<b>7. Performance Security</b>	7.1	Within twenty (20) days of receipt of the notification of Contract award, the successful Bidder shall furnish to the Procuring Entity the performance security in the amount specified in SCC.
	7.2	The proceeds of the performance security shall be payable to the Procuring Entity as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
	7.3	The performance security shall be denominated in the currency of the Contract acceptable to the Procuring Entity and shall be in one of the following forms: a. a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the Procuring Entity's country, in the form provided in the Bid Solicitation Documents or another form acceptable to the Procuring Entity; or b. a cashier's or certified check.
	7.4	The performance security will be discharged by the Procuring Entity and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in SCC.
<b>8. Inspections and Tests</b>	8.1	The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Procuring Entity. SCC and the Technical Specifications shall specify what inspections and tests the Procuring Entity requires and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.
	8.2	The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery, and/or at the Goods' final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Procuring Entity.
	8.3	Should any inspected or tested Goods fail to conform to the

		Specifications, the Procuring Entity may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Procuring Entity.
	8.4	The Procuring Entity's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival in the Procuring Entity's country shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Procuring Entity or its representative prior to the Goods' shipment from the country of origin.
	8.5	Nothing in GCC Clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.
<b>9. Packing</b>	9.1	The Supplier 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.
	9.2	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, if any, specified in SCC, and in any subsequent instructions ordered by the Procuring Entity.
<b>10. Delivery and Documents</b>	10.1	Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping and/or other documents to be furnished by the Supplier are specified in SCC.
	10.2	Documents to be submitted by the Supplier are specified in SCC.
<b>11. Insurance</b>	11.1	The Goods supplied under the Contract shall be delivered duty paid (DDP) under which risk is transferred to the buyer after having been delivered, hence insurance coverage is sellers responsibility.
<b>12. Transportation</b>	12.1	The Supplier is required under the Contract to transport the Goods to a specified place of destination within the Procuring Entity's country, transport to such place of destination in the Procuring Entity's country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.
<b>13. Incidental Services</b>	13.1	The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC: <ul style="list-style-type: none"> <li>a. performance or supervision of on-site assembly and/or start-up of the supplied Goods;</li> <li>b. furnishing of tools required for assembly and / or maintenance of the supplied Goods;</li> <li>c. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;</li> <li>d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and</li> <li>e. training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation,</li> </ul>

		maintenance, and/or repair of the supplied Goods.
	13.2	Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged for other parties by the Supplier for similar services.
<b>14. Spare Parts</b>	14.1	<p>As specified in SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:</p> <ol style="list-style-type: none"> <li>a. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and</li> <li>b. in the event of termination of production of the spare parts: <ol style="list-style-type: none"> <li>i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements;</li> <li>ii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested.</li> </ol> </li> </ol>
<b>15. Warranty</b>	15.1	The Supplier warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Procuring Entity's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
	15.2	This warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.
	15.3	The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty.
	15.4	Upon receipt of such notice, the Supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof, without costs to the Procuring Entity.
	15.5	If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, within a reasonable period, the Procuring Entity may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Procuring Entity may have against the Supplier under the Contract.
<b>16. Payment</b>	16.1	The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC.
	16.2	The Supplier's request(s) for payment shall be made to the Procuring Entity in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and by documents submitted pursuant to GCC Clause 10, and upon fulfillment of other obligations stipulated in the Contract.

	16.3	Payments shall be made promptly by the Procuring Entity, but in no case later than sixty (60) days after submission of an invoice or claim by the Supplier.
	16.4	The currency of payment is Pak. Rupees.
<b>17. Prices</b>	17.1	Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in SCC or in the Procuring Entity's request for bid validity extension, as the case may be.
<b>18. Change Orders</b>	18.1	The Procuring Entity may at any time, by a written order given to the Supplier pursuant to GCC Clause 31, make changes within the general scope of the Contract in any one or more of the following: <ul style="list-style-type: none"> <li>a. drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Procuring Entity;</li> <li>b. the method of shipment or packing;</li> <li>c. the place of delivery; and/or</li> <li>d. the Services to be provided by the Supplier.</li> </ul>
	18.2	If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Procuring Entity's change order.
<b>19. Contract Amendments</b>	19.1	Subject to GCC Clause 18, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
<b>20. Assignment</b>	20.1	The Supplier shall not assign, in whole or in part, its obligations to perform under this Contract, except with the Procuring Entity's prior written consent.
<b>21. Subcontracts</b>	21.1	The Supplier shall notify the Procuring Entity in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.
	21.2	Subcontracts must comply with the provisions of GCC Clause 3.
<b>22. Delays in the Supplier's Performance</b>	22.1	Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Procuring Entity in the Schedule of Requirements.
	22.2	If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Procuring Entity in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Procuring Entity shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.
	22.3	Except as provided under GCC Clause 25, a delay by the Supplier in the performance of its delivery obligations shall render the

		Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 23, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of liquidated damages.
<b>23. Liquidated Damages</b>	2.31	Subject to GCC Clause 25, 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 Entity 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 SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Procuring Entity may consider termination of the Contract pursuant to GCC Clause 24.
<b>24. Termination for Default</b>	24.1	<p>The Procuring Entity, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:</p> <ol style="list-style-type: none"> <li>a. if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring Entity pursuant to GCC Clause 22; or</li> <li>b. if the Supplier fails to perform any other obligation(s) under the Contract.</li> <li>c. if the Supplier, in the judgment of the Procuring Entity has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.</li> </ol> <p>For the purpose of this clause:</p> <p>“corrupt practice” means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.</p> <p>“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 Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.</p>
	24.2	In the event the Procuring Entity terminates the Contract in whole or in part, pursuant to GCC Clause 24.1, the Procuring agency may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Procuring Entity for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.
<b>25. Force Majeure</b>	25.1	Notwithstanding the provisions of GCC Clauses 22, 23, and 24, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the

		extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
	25.2	For purposes of this clause, “Force Majeure” means an event beyond the control of the Supplier and not involving the Supplier’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Procuring Entity in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
	25.3	If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring Entity in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring Entity in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
<b>26. Termination for Insolvency</b>	26.1	The Procuring Entity may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity.
<b>27. Termination for Convenience</b>	27.1	The Procuring Entity, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Procuring Entity’s convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
	27.2	The Goods that are complete and ready for shipment within thirty (30) days after the Supplier’s receipt of notice of termination shall be accepted by the Procuring Entity at the Contract terms and prices. For the remaining Goods, the Procuring Entity may elect: <ul style="list-style-type: none"> <li>a. to have any portion completed and delivered at the Contract terms and prices; and/or</li> <li>b. to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Services and for materials and parts previously procured by the Supplier.</li> </ul>
<b>28. Resolution of Disputes</b>	28.1	The Procuring Entity and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
	28.2	If, after thirty (30) days from the commencement of such informal negotiations, the Procuring Entity and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in SCC. These mechanisms may include, but are not restricted to, conciliation mediated by a third party, adjudication in an agreed manner and/or arbitration.
<b>29. Governing Language</b>	29.1	The Contract shall be written in the language specified in SCC. Subject to GCC Clause 30, the version of the Contract written in the specified language shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

<b>30. Applicable Law</b>	30.1	The Contract shall be interpreted in accordance with the laws of the Procuring Entity's country, unless otherwise specified in SCC.
<b>31. Notices</b>	31.1	Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by cable, telex, or facsimile and confirmed in writing to the other party's address specified in SCC.
	31.2	A notice shall be effective when delivered or on the notice's effective date, whichever is later.
<b>32. Taxes and Duties</b>	32.1	Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Procuring Entity.



**BID SOLICITATION DOCUMENTS (BSDs)**

**UNDER**

**NATIONAL COMPETITIVE BIDDING (NCB) THROUGH EPADS FOR MTI-HMC, KGMC,  
IKD,B&PSC & PICO**

**FOR**

**THE PROCUREMENT, INSTALLATION, TESTING & COMMISSIONING OF MEDICAL  
EQUIPMENT, HOSPITAL FURNITURE, OFFICE FURNITURE & MICELLANIOUS  
ITEMS**

**APRIL 2026**

**ACCIDENT & EMERGENCY PROJECT, DIFFERENT HOSPITAL DEPARTMENTS OF  
MTI-HMC & AFFILIATED INSTITUTIONS PESHAWAR, GOVERNMENT OF KHYBER  
PAKHTUNKHWA**

**PART TWO (PROCUREMENT SPECIFIC PROVISIONS)**

- Invitation for Bids (IFB)
- Bid Data Sheet (BDS)
- Special Conditions of Contract (SCC)
- Schedule of Requirements
- Technical Specifications
- Sample Forms
- Eligibility

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**PART TWO**

**Section I. Invitation for Bids**  
**Invitation for Bids Through EPADS**

## INVITATION TO BIDS THROUGH EPADS FOR MTI-HMC, KGMC, IKD, B&PSC & PICO

### (NATIONAL COMPETITIVE BIDDING)

The Office of the Hospital Director, MTI/Hayatabad Medical Complex & its Affiliates Institutions, Peshawar, Government of Khyber Pakhtunkhwa invites E-Bids/Proposals through E-PADS under KPPRA Rules 2014 as amended from time to time from well-reputed and financially sound manufacturers, Importers & Sole Authorized Agents registered with the relevant registration authorities and Tax Department i.e. income tax, sales tax, Security & Exchange Commission of Pakistan as well as Khyber Pakhtunkhwa Revenue Authority (where applicable) etc. for the procurement, installation, testing & commissioning of medical equipment, hospital furniture, Instruments, Information Technology Items/equipment, Office Furniture & miscellaneous Items for Accident & Emergency Project, different Hospital departments of MTI-HMC & its affiliated Institutions. Details are as under;

S. No	Name of items	Bid Security	Tender Opening Time & Date	Pre-Bid Meeting Time & Date
<b>KPPRA RULES 6(2)(b) SINGLE STAGE TWO ENVELOPES BIDDING METHOD.</b>				
1.	Surgical/Medical Equipment	2% of the quoted financial bid.	21-05-2026 @ 11:30 am	07-05-2026 @ 11:00 am
2.	LOT-CSSD & Laundry Equipment	2% of the quoted financial bid.	21-05-2026 @ 11:30 am	07-05-2026 @ 11:00 am
3.	LOT-IT Equipment (Multiple LOTs)	2% of the quoted financial bid.	21-05-2026 @ 11:30 am	07-05-2026 @ 11:00 am
4.	LOT-Various Instruments (Imported) (Multiple LOTs)	2% of the quoted financial bid.	21-05-2026 @ 11:30 am	07-05-2026 @ 11:00 am
5.	LOT-Hospital Furniture	2% of the quoted financial bid.	21-05-2026 @ 11:30 am	08-05-2026 @ 11:00 am
6.	LOT-Office Furniture	Rupees 500,000	21-05-2026 @ 11:30 am	08-05-2026 @ 11:00 am
<b>KPPRA RULES 6(2)(a) SINGLE STAGE SINGLE ENVELOPE BIDDING METHOD</b>				
7.	LOT-Various Instruments (Local Made) (Multiple LOTs)	Rupees 500,000	21-05-2026 @ 11:30 am	08-05-2026 @ 11:00 am

8.	LOT-IT Hardware & Networking Accessories (Multiple LOTs)	Rupees 500,000	21-05-2026 @ 11:30 am	08-05-2026 @ 11:00 am
9.	Low-Tech General Equipment & Bio Medical Equipment	Rupees 500,000	21-05-2026 @ 11:30 am	N/A
10.	Miscellaneous Accessories	Rupees 500,000	21-05-2026 @ 11:30 am	N/A

### Terms & Conditions:

1. The bid solicitations documents containing all information on terms & conditions, bidding method, evaluation procedure, requirements & specifications, etc. can be downloaded online from KPPRA official web portals i.e., <http://www.kppra.gov.pk> , <https://kp.eprocure.gov.pk>. & [www.hmckp.gov.pk](http://www.hmckp.gov.pk) before the closing date and time.
2. All prospective bidders shall be required to quote bids both on Delivered Duty Paid (DDP) & Cost Insurance Freight (CIF) basis (From S. No. 01 to 05) DDP based quoted bids/rates shall be in Pakistani Rupees & CIF based quoted bids/rates shall be in US Dollar & Euro Only (**where applicable**). Equipment / Items / Accessories from S. No. 06 to 10 shall be quoted on DDP basis in PKR only.
3. A bidder is required to submit a **lowest bid certificate (mandatory)** as per the approved format mentioned in bid solicitation documents. In-case of non-compliance, bid will be considered as non-responsive and hence will be rejected.
4. S. No 02, 03, 04, 05, 06, 07 & 08 as mentioned in bid solicitation documents and technical specification shall be quoted by the bidder in full Lot. Bidder shall submit separate bid security for each LOT/Multiple LOTs. The bidders are required to quote for the whole LOT scope. In-case of non-compliance (**Partial Scope**) bid will be considered as non-responsive and hence will be rejected.
5. S. No. 03, 04, 07 & 08 are comprised of multiple LOTs. Potential bidders are required to quote for each single LOT in full scope with a separate bid security as mentioned in the aforementioned table for each single LOT. In case of non-compliance (Partial Scope), bid will be considered as non-responsive and hence will be rejected.
6. Conditional or alternate/optional bids shall be rejected.
7. E-Bids or Proposals tender can be submitted till **11:00 AM** & will be opened on the same day, at **11:30 AM** in the Conference Room of the MTI/Hayatabad Medical Complex, Peshawar through E-PADS in the presence of bidders or their representatives who wish to attend.
8. Bidders are advised to ensure uploading the Bids on E-PADS Portal well before the submission deadline, and not to wait for the last date and time to upload the bid. Bid submission on E-PADS Portal shall entirely be the responsibility of the bidder. Office of the Hospital Director, MTI/HMC Peshawar, Government of Khyber shall not be held responsible for any issues thereof. For any assistance regarding E-PADS Portal, system support email and phone numbers are provided on the Federal PPRA's website.
9. Taxes, duties & levies etc. will be deducted as per the prevailing Government rules.
10. Pre-bid meeting will be held in the Conference Room of MTI/HMC Peshawar, Administration Block. Potential bidders are encouraged to attend the pre-bid meeting on the mentioned venue, date & time.
11. E-bids or Proposals with complete bidding documents on official business letterhead typed including Technical & Financial bids/documents (inclusive of all taxes) duly signed, stamped and in complete conformity with the bid solicitation documents shall be separately submitted by the bidders online on the E-Procurement system E-PADS website i.e. <https://kp.eprocure.gov.pk>. Hand written bids will be rejected.
12. Scanned copies of the original bidding documents must be uploaded to E-PADS in PDF format only. All the uploaded bidding documents must be clear, legible/readable and visible. In-case of non-compliance, bid will be considered as non-responsive and hence will be rejected.
13. Original Bid Security in shape of CDR clear scanned copy shall be uploaded online on the EPADS along with financial bid while hard copy shall be submitted in a sealed envelope on or before the tender closing date & time to the **Supply Chain Management Department, Administration Block,**

**MTI-HMC & Affiliated Institutions.**

14. In case of a public holiday due to any reason, the date of opening the tender will be considered the next working day.
15. All the submitted & quoted rates/E-bids or Proposals under framework Contract shall be valid till 30/06/2027 & further extendable as per government rules.
16. The Procuring Agency reserves the right to reject any or all E-Bids or proposals at any time before the acceptance of E-Bids or proposals under Rules 47 of KPPRA 2014.

**HOSPITAL DIRECTOR**  
MTI-HMC, Peshawar

**SAY NO TO CORRUPTION**

## Section II. Bid Data Sheet

**Bid Data Sheet**

<b>Introduction</b>		
<b>ITB 1.1</b>	Name of Procuring entity of Government of Khyber Pakhtunkhwa.	Hospital Director, MTI/Hayatabad Medical Comple, Peshawar.
<b>ITB 1.1</b>	Loan or credit or Project allocation number. Loan or credit or Project allocation amount. [when applicable]	Budget allocated or any other Source through which amount is allocated for Health department for the year 2026-27.
<b>ITB 1.1</b>	Name of Project.	Accident & Emergency Project, Different Hospital Departments MTI/Hayatabad Medical Complex & Affiliated Institutes (IKD, B&PSC, KGMC & PICO) through Framework Agreement for the FY 2026-27 as per KPPRA Rules.
<b>ITB 1.1</b>	Name of Contract.	Framework Contract for Procurement, Installation, Testing & Commissioning of Medical Equipment, Hospital Furniture, Instruments, Information Technology Itesm/Equipment, Office Furniture & Miscellaneous Items FY 2026-27.
<b>ITB 4.1</b>	Name of Procuring entity.	Hospital Director, MTI/Hayatabad Medical Complec & Affiliated Insitutions ((IKD, B&PSC, KGMC & PICO), Peshawar.
<b>ITB 6.1</b>	Procuring entity's address, telephone, telex, and facsimile numbers.	Hospital Director, MTI/Hayatabad Medical Comple, Peshawar. Tel No: 091- 9217919
<b>ITB 8.1</b>	Language of the bid.	English
<b>Bid Price and Currency</b>		
<b>ITB 11.2</b>	The price quoted shall be.	i.Sr. no. 01,02,03,04 & 05 Financial bids/rates shall be quoted on both Delivered Duty Paid (DDP) & Cost, Insurance & Freight (CIF) Basis as per the tender notice. DDP based bid shall be quoted in Pakistani Rupees and CIF based rates shall be quoted in USD & Euro Only. The incidental services if any must be quoted separetly. ii. Sr. no. 06,07,08,09 & 10 Financial bids/rates shall be quoted on Delivered Duty Paid (DDP) basis in Pakistani Rupees only.

		<p>All the bids must be computer typed. No hand written bids will be acceptable. In case of non-compliance, bid(s) will be considered as non-responsive.</p> <p>To ensure value for money &amp; discourage bid rigging, It is mandatory that each bidder shall submit <b>lowest bid certificate</b> clearly stating that the same equipment/item has neither been quoted below this rate nor supplied to any other public sector hospital or institution in the current financial year across Pakistan. Prospective potential bidders are encouraged to quote a fair price bid in larger interest of the institution. In case of misdeclaration, the procuring agency in any stage of the reserves the right to recover the differential amount from the submitted bid security or bank gurantee and black list the bidder/vendor in larger interest of the institution.</p>
<b>ITB 11.5</b>	The Price shall be fixed.	The quoted prices will be valid till 30 <sup>th</sup> June 2027.
<b>Preparation and Submission of Bids</b>		
<b>ITB 13.3 (d)</b>	Qualification requirements.	Manufacturer, Importer & Authorised agents Registered with FBR (Income Tax, Sales Tax, ATL), Professional Tax, KPRA, SECP & DRAP (where applicable).
<b>ITB 14.3 (b)</b>	Spare parts required for-----[ <i>number</i> ] of years of operation.	<p>i. Ten (10) years parts availability in market and will be provided for high-tech equipment/items.</p> <p>ii. Five (05) years for low-tech equipment/items.</p>
<b>ITB 15.1</b>	Amount of bid security.	<p>i. For sr. no. 01 to 05 Bid security shall be @ 2% of the quoted financial bid value.</p> <p>ii. For sr. 06 to 10 bid security shall be @ Rupees 500,000. The bid security shall be from the bidder's bank account. The mode of provision of bid security shall be in accordance with the modalities as laid down in the relevant KPPRA Rules.</p>
<b>ITB 16.1</b>	Bid validity period.	120 days from the date of opening of bids
<b>ITB 17.1</b>	Number of copies.	Online submission of original clear, readable, visible scanned bidding

		documents duly signed, stamped by the bidder in PDF format only through EPADS Only.
<b>ITB 18.2 (a)</b>	Address for bid submission.	Online submission of original bidding documents through EPADS. (Original Bid Security in shape of CDR or in any other form as per KPPRA Rules 2014 as amended from time to time shall be submitted to the Supply Chain Management Department, MTI/Hayatabad Medical Complex, Peshawar in a sealed envelope by clearly mentioning the applied Equipment or LOT(s) as per the tender notice.
<b>ITB 18.2 (b)</b>	IFB title and number.	Framework Contract for Procurement, Installation, Testing & Commissioning of Medical Equipment, Hospital Furniture, Instruments, Information Technology Items/equipment, Office Furniture & Miscellaneous Items FY 2026-27.
<b>ITB 19.1</b>	Deadline for bid submission.	<b>11:00 a.m. Sharp. Thursday 21<sup>st</sup> of May, 2026.</b>
	Pre-Bid meeting with the bidders	A Category wise pre-bid meetings with the interested/potential bidders will be held on <b>i. For Sr.# 01 to 04, 11:00 a.m Thursday, 7<sup>th</sup> of May, 2026.</b> <b>ii. For Sr.# 05 to 08, 11:00 a.m Friday, 8<sup>th</sup> of May, 2026,</b> respectively.
<b>ITB 22.1</b>	Time, date, and place for bid opening.	<b>Through EPADS 11:30 a.m. Sharp. Thursday 21<sup>st</sup> of May, 2026, in the Conference Room, MTI/Hayatabad Medical Complex, Peshawar.</b>
<b>Bid Evaluation</b>		
<b>ITB 25.3</b>	(a).Criteria for bid evaluation.	<b>Merit Point Evaluation</b> <b>A.(Single Stage Two Envelopes)</b> i. For Sr. 01 to 06, the bidder securing the highest merit points, obtained through the combined technical and financial evaluation, shall be declared successful and shall be awarded contract to the most advantageous bid as per KPPRA Act 2(c)(i). Sample must be provided for technical assessment by the bidder at his/her own cost.

		<p><b>B.(Single Stage Two Envelopes)</b>  ii.For Sr. 07 to 10, the bidder quoting the lowest bid subject to conformity to the technical specifications, sample technical assessment/ evaluation by the end user, procurement committee &amp; compliance to the bid socilitaion documents shall be declared as successful bidder &amp; the contract will be awarded to the lowest quoted bid among the technically qualified bidders. Sample must be provided for technical assessment by the bidder at his/her own cost. Details on sample assessment is mentioned in each individual criteria as a ready reference.</p> <p><b>C. LOT(s)</b>  iii.LOT Items/equipment as mentioned in detailed technical specifiactions shall be quoted in full compliance (complete scope of listed items or instruements or equipment shall be quoted). In case of non-complince, the bids shall be considered as technically non-responsive and hence shall be rejected.</p> <p>iv.All bidders are expected to meet the mandatory requirements as mentioned in each category technical evaluation criteria. In case of non-compliance, the bid shall be considered as non-responsive under preliminary scrutiny &amp; hence will be rejected.</p>
	(b).Clarification of Bids	The Procuring Entity may ask the Bidder in writing, only for clarification regarding the received bidding documents in the bid; however, no change in the prices or substance of the bid shall be sought, offered, permitted or entertained.
<b>ITB 25.4 (a)</b> <b>ITB 25.4 (b)</b>	One option only.Delivery schedule. Relevant parameters in accordance with option selected:	Within Ninety (90) days for Imported Items & within Thirty (30) days for local items or as per the government rules.
<b>Option (i)</b> <b>Option (ii)</b> <b>Option (iii)</b>	adjustment expressed as a percentage, or adjustment expressed in an amount in the currency of bid evaluation, or adjustment expressed in an amount in the currency of bid evaluation,	Not Applicable
<b>ITB 25.4 (c)</b> <b>(ii)</b>	Deviation in payment schedule. Annual interest rate.	Not Applicable

<b>ITB 25.4 (d)</b>	Cost of spare parts.	Free of cost under comprehensive warranty period from the date of installation, testing, commissioning & issuance of satisfactory performance report to be issued by the end user.
<b>ITB 25.4 (e)</b>	Spare parts and after sales service facilities in the Procuring agency's country.	To ensure timely repair & replacement of the faulty parts/components within the timelines of the contract, a minimum inventory of the brand new & unused major components of the quoted equipment shall be maintained by the prospective bidder in Pakistan as mentioned in criteria.
<b>ITB 25.4 (f)</b>	<p>Operating and maintenance costs.  Factors for calculation of the life cycle cost:  (i) number of years for life cycle  (ii) operating costs  (iii) maintenance costs; and  (iv) rate, as a percentage, to be used to discount all annual future costs calculated under (ii) and (iii) above to present value. Or  Reference to the methodology specified in the Technical Specifications or elsewhere in the Bid Solicitation Documents.</p>	<p>Free of cost under comprehensive warranty ( both spare parts + services) period for the period as mentioned in the technical specification for each equipment/item/instruments.</p> <p>Post warranty ( both spare parts + services) of the quoted percentage of the quoted financial bid as mentioned in the technical specifications for each equipment/items/instruments.</p>
<b>ITB 25.4 (g)</b>	Performance and productivity of equipment.	Not Applicable
<b>ITB 25.4 (h)</b>	Details on the evaluation method or reference to the Technical Specifications.	<p>i. For sr. no. 01 to 06, the quoted bids shall be evaluated as per the bidding method Single Stage Two Envelopes 6(2)(b) KPPRA rules 2014 &amp; contract to the successful bidder will be awarded as per the 2(c)(i) of the KPPRA Act 2012 as amended from time to time in full compliance of technical specifications, technical criteria, &amp; BSDs.</p> <p>ii. For sr. no. 07 to 10, the quoted bids shall be evaluated as per the bidding method Single Stage One Envelope 6(2)(a) KPPRA rules 2014 &amp; contract to the successful bidder will be awarded to the lowest subject to compliance with BSDs, technical specifications, technical criteria &amp; sample assessment by the end user &amp; procurement committee.</p> <p>Physical Inspection of the manufacturers, importers and</p>

		<p>bidders offices, manufacturing units, warehouses, &amp; workshops will be carried out if deem appropriate.</p> <p>All the certifications from accredited bodies, as the case may be, shall contain the quoted product (s) in its scope, moreover the accredited body shall be authorized to certify the quoted product (s).</p>
<b>ITB 25.4 Alternative</b>	Specify the evaluation factors.	Not Applicable
<b>Contract Award</b>		<p>i. For sr. no. 01 to 06 as per KPPRA Act 2012 Section 2 (c)(i) under single stage two envelopes bidding method.</p> <p>ii. For sr. no. 07 to 10 as per the KPPRA Rules 2014 as amended from time to time under single stage one envelope bidding method.</p>
ITB 29.1	Percentage for quantity increase or decrease.	Number of items can be increased and decreased as per requirement of the PE within permissible limits under the rules.

### Section III. Special Conditions of Contract

The following Special Conditions of Contract shall supplement & qualify the General Conditions of Contract (GCC).

Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

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## **Special Conditions of Contract**

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

### **1. Definitions (GCC Clause 1)**

GCC 1.1 (g)—The Procuring entity is: Hospital Director, MTI/Hayatabad Medical Complex & Affiliated Institutions (MTI-HMC, KGMC, IKD, B&PSC & PICO) Peshawar.

GCC 1.1 (h)—The Procuring entity’s country is: Islamic Republic of Pakistan.

GCC 1.1 (i)—The Supplier is: Manufacturer and/or Importer and/or Authorized Agent registered with relevant sales and income tax authorities, Regulatory Bodies and have requisite qualification and eligibility for supply of Goods in the specialized categories as per the IFB.

### **Sample Provision**

GCC 1.1 (j)—The Project Site is: Accident & Emergency Project, Different Hospital Departments of MTI/HMC & Its Affiliated Institutions. Details on sample provision & its technical assessment is mentioned in each individual technical criteria.

When required, the Focal Person of the bidder will be informed through letter to provide samples of the Equipment/Instruments/Devices/items in a sufficient / required quantity for examination / analysis to the Supply Chain Management Department, MTI/HMC & affiliates Institutions or any other place notified by the Supply Chain Management Department, at bidder’s own risk and cost at the time and date communicated. The samples will be returnable and no payment shall be made to bidder / Focal Person on this account. Top three samples of the top three bidders will be retained by the procuring agency upon the technical evaluation & recommendation for record as ready reference.

### **2. Country of Origin (GCC Clause 3)**

All countries and territories as indicated in Part Two Section VI of the Bid Solicitation Documents, “Eligibility for the Provisions of Goods, Works, and Services in Government-Financed Procurement”. The bidder will provide the details regarding country of origin, Model, Make, manufacturer, along with details of Manufacturing Units and mode of supply, shipment, and any other associated details of the component items and that of the quoted equipment. Bidders are bound to supply the equipment from quoted country of origin & country of manufacturing. Details are mentioned in technical criteria for each individual category in BSDs.

### **3. Performance Security (GCC Clause 7)**

GCC 7.1—The amount of performance security, as a percentage of the Contract Price, shall be ten percent (10%). However, the Standard bid security @ 2 percent of the bid value, as elaborated in Section-IV, Statement of Requirement, of this document, from the successful bidders as received at the time of bids submission under GCC Clause 15 shall be retained by the Hospital Supply Chain Department as Bid Security and will be released back to successful bidders after the receipt of 10%

performance security on each individual supply order placed by the respective procuring entity and will be retained by procuring entity till completion of warranty period.

GCC 7.4—After delivery and acceptance of the Goods/equipment/items, the performance security shall be retained in same percent of the Contract Price to cover the Supplier's warranty obligations in accordance with Clause GCC 15.2.

#### **4. Inspections and Tests (GCC Clause 8)**

GCC 8.6—Inspection and tests prior to shipment of Goods and at final acceptance are as follows:

- i.** Technical Evaluation shall be conducted by the Technical and Evaluation (T&E) Committee or procurement scrutiny Committee to undertake verification of documents submitted by the bidder/s along with the technical bids as well as to conduct the physical inspection of the various samples &/or relevant premises as per rent agreement or ownership etc. (Section-V -Technical Specification of the Part II of these SBDs)
- ii.** Machinery & Equipment and other items supplied for sample tests shall be examined and tested by a panel of experts of the T&E Committee of the Government/Hospital for the submission of technical report to the relevant forum for the needful & onward finalization of bid evaluation report.
- iii.** Sample tests as well as pre-shipment inspections will also be carried out as and when needed before signing of contract agreement with all the successful bidders for Machinery & Equipment, instruments etc where applicable or deem appropriate by the procuring agency.
- iv.** Any other appropriate method may be adopted by the T&E Committee, and / or Procurement Committee to assess and/or assure the quality of goods being purchased. The Procuring Entity reserves the rights to reject the quoted items/equipment at any stage before award of contract in case of any deviation from the standard specifications & BSDs.

#### **5. Packing (GCC Clause 9)**

In accordance with the GCC Clause 9 as well as provided in the relevant clauses of contract agreement of MTI/HMC & Affiliates Institution with the Supplier/s (Section-VI of these SBDs/BSDs – Framework Agreement).

##### **Sample provision**

GCC 9.3—The following SCC shall supplement GCC Clause 9.2:

#### **6. Delivery and Documents (GCC Clause 10)**

Applicable Delivery Mode: Delivered Duty Paid (DDP) or Cost, insurance & Freight (CIF) as per framework contract/agreement of the Successful bidder with the Procuring Entity.

##### **Sample provision (DDP terms)**

GCC 10.3—Upon shipment, the Supplier shall notify the Procuring entity the full details of the shipment, including Contract number, description of Goods, quantity and usual transport document. The Supplier shall mail the following documents to the Procuring entity:

- i. copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;
- ii. original and two copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods;
- iii. copies of the packing list identifying contents of each package;
- iv. insurance certificate;
- v. Manufacturer's or Supplier's warranty certificate;
- vi. inspection certificate, issued by the nominated inspection agency, and the Supplier's factory inspection report; and
- vii. certificate of origin.

### **Sample provision (CIF terms)**

Same for CIF as explained above for DDP & will be in compliance to standard international trade best practices.

### **7. Insurance (GCC Clause 11)**

GCC 11.1— The Goods supplied under the Contract shall be delivered duty paid (DDP) under which risk is transferred to the buyer after having been delivered, hence insurance coverage is seller's responsibility. Since the Insurance is seller's responsibility they may arrange appropriate coverage. In case of CIF, it will be as per the applicable incoterms version issued by the international Chamber of Commerce (ICC).

### **8. Incidental Services (GCC Clause 13)**

GCC 13.1—Incidental services to be provided are: Installation, testing, commissioning, import shipping, freight forwarding, customs clearance, inland transportation & insurance etc shall be covered by the bidder in its bid in each equipment/item separately.

*[Selected services covered under GCC Clause 13 and/or other should be specified with the desired features. The price quoted in the bid price or agreed with the selected Supplier shall be included in the Contract Price.]*

### **9. Spare Parts (GCC Clause 14)**

GCC 14.1—Additional spare parts requirements are: will be mentioned in contract agreement & Purchase Order if required any. Bidder shall submit an undertaking that he or she is holding/maintaining minimum inventory of major components/parts/consumables/items to ensure timely rectification/maintenance of the supplied equipment/asset. In case of non-compliance, the procuring agency has the right to impose a financial penalty i.e; 10 to 20 percent of the contract value. Other spare parts and components shall be supplied as promptly as possible, but in any case within one (01) month of placing the purchase order/official intimation through letter or opening the letter of credit where applicable.

### **Sample provision**

GCC 14.1—Supplier shall carry sufficient inventories to assure ex-stock supply of major components, Parts & Consumable Spares for the Goods. Other spare parts and components shall be supplied as promptly as possible, but in any case within one (01) month of placing the order and opening the letter of credit.

### **10. Warranty (GCC Clause 15)**

The Supplier shall provide comprehensive warranty (both spare parts & services) as per the terms and conditions of the Framework Contract or Agreement with Procuring Entity. Warranty requirement varies

from equipment or item or consumables or accessories to equipment or item or consumables or accessories as the case may be. Each bidder shall examine detailed specification for each equipment or or item or consumables or accessories. In case of non-compliance, bid shall be considered as technically non-responsive and hence shall be rejected.

GCC 15.2—In partial modification of the provisions, the warranty period shall be as per the Contract terms & conditions. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the Contract. If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:

a. make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC 4,

or

b. pay liquidated damages to the Procuring Entity with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be higher than the adjustment price used in bid evaluation.

GCC 15.4 & 15.5—The period for correction of defects in the warranty period is:  
The period for correction of defects in the free comprehensive warranty (spareparts/accessories & services) period will commence soon after the successful installation, testing & commissioning of the equipment/item. After the exhaust/completion of the tender comprehensive warranty, Post Warranty (both with spare parts/accessories & services) will commence accordingly. Details are mentioned in technical specifications & technical criteria.

#### 11. **Payment (GCC Clause 16)**

GCC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows: the goods supplied under the framework Contract shall either be delivered duty paid (DDP) basis under which risk is transferred to the buyer after the goods having been delivered; hence insurance coverage is seller's responsibility, for which they may arrange appropriate coverage. Payment shall be made in Pak. Rupees in accordance with the relevant and applicable government rules and regulations.

Or

the goods supplied under the framework Contract shall be on Cost, Insurance & Freight (CIF) basis as per the applicable Incoterms issued by the International Chamber of Commerce in the currency as agreed in the contract agreement or purchase order wherein risk, insurance & responsibility will be covered accordingly. The currency for payment will be the currency of the financial bid of the bidder bidding document through letter of credit established by any designated bank of the procuring agency.

(i) Payment shall not be made for partial and incomplete supply of goods.

#### **Payment for Goods supplied:**

Payment shall be made in Pak. Rupees in the following manner:

#### **A. Cost, Insurance & Freight (CIF) Basis:**

i. On Shipment: Eighty (80) percent of the Contract Price of the Goods shipped shall be paid through irrevocable confirmed letter of credit opened in favor of the Supplier in a bank in its country, upon submission of documents specified in GCC Clause 10.

ii. On Acceptance: Twenty (20) percent of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of the Goods/Equipment upon submission successful installation, testing,

commissioning at the job site & issuance of satisfactory performance report by the end user of the procuring entity.

- iii. Payment of local currency portion shall be made in [currency] within thirty (30) days of presentation of claim supported by a certificate from the Procuring Entity declaring that the Goods have been delivered and that all other contracted Services have been performed.

**B. Delivered Duty Paid (DDP) Basis:**

i. 100% of the Contract Price on complete delivery of the ordered Goods to the procuring agency Warehouse/store within thirty (30) days subject to availability of funds upon the submission of claim supported by acceptance certificate from Procuring Entity declaring Goods have been delivered and that all contracted services have been performed.

- ii. In case of medical equipment/General equipment, 100% payment shall be paid within thirty (30) days subject to availability of funds upon the successful installation, testing, commissioning at the job site & issuance of satisfactory performance report by the end user of the procuring agency.

**12. Prices (GCC Clause 17)**

- i. The bidder shall not quote price of any equipment/s or item/s which is/are higher than the prices quoted by the bidder across the country to any other procuring entity of the quoted item/s through public funding in the same financial year. To ensure value for money, economy, fair competition & discourage fraudulent or malpractices, Provision of the **Lowest Bid Certificate** by the bidder to the procuring entity is mandatory.
- ii. In case the bid price is higher than estimated cost, the Procuring Entity has the right to reject the bid of that particular quoted item only.
- iii. Duties & taxes: The Unit price quoted by the bidder shall be: inclusive of all applicable duties and taxes. All prices shall include relevant taxes & duties, where applicable. The benefit of exemption from or reduction in the GST or other taxes/duties shall be passed on to the Purchasing Entity.
- iv. In case of single bid after technical evaluation, the procuring Entity may carry out the market analysis and negotiate with the bidder before issuing a letter of consent/Intent to the successful bidder.
- v. For all those equipment/items where optional prices are required, the bidder must quote the optional prices of each optional part separately. Failure to quote optional prices, the bidder will be considered non-responsive for that particular item.
- vi. For the purpose of bid evaluation and comparison, the prices quoted for optional items shall be added to the total quoted price. Comparison based on individual optional item prices shall not be considered.
- vii. In case of LOT(s), financial bid shall be calculated for the whole LOT.

GCC 17.1—Prices shall be adjusted in accordance with provisions in the Attachment to SCC. Not applicable.

**13. Liquidated Damages (GCC Clause 23)**

GCC 23.1—Applicable rate: As in relevant clauses of the framework Contract/Agreement signed by the Supplier with the Procuring Entity, Penalties (LDs) shall be imposed as per contract/agreement and notified blacklisting & debarment guidelines of the Hospital if the firm/supplier deviates from the framework Contract/Agreement.

Maximum deduction: Applicable rate shall not exceed one-half (0.5) percent per week, and the maximum shall not exceed ten (10) percent of the Contract Price.

**14. Resolution of Disputes (GCC Clause 28)**

GCC 28.3—The dispute resolution mechanism to be applied pursuant to GCC Clause 28.2 shall be as follows:

In the case of a dispute between the Procuring Entity and the Supplier, the dispute shall be referred to adjudication or arbitration in accordance with the laws of the Procuring Entity's country. The procuring entity shall comply with & enforce the KPPRA, Government of Khyber Pakhtunkhwa grievance redressal mechanism.

#### **15. Governing Language (GCC Clause 29)**

GCC 29.1—The Governing Language shall be: English.

#### **16. Applicable Law (GCC Clause 30)**

GCC 30.1-The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan which includes the following legislation:

- i. The Employment of Children (ECA) Act 1991.
- ii. The Bonded Labour System (Abolition) Act of 1992.
- iii. The Factories Act 1934.
- iv. The KPPRA Act 2012, KPPRA Rules 2014 as amended from time to time.
- v. The General Financial Rules of the Govt. of Khyber Pakhtunkhwa and all the relevant laws, rules and regulations pertaining to budgeting & financial management of public fund.
- vi. The Contract Act 1872

#### **17. Notices (GCC Clause 31)**

GCC 31.1— Procuring Entity's address for notice purposes: Hospital Director, MTI/Hayatabad Medical Complex & Affiliated Institutions (HMC, KGMC, IKD, B&PSC & PICO) Peshawar, Khyber Pakhtunkhwa.

—Supplier's address for notice purposes: As mentioned in their bidding document with full details.

#### **18. Bidders Influence**

Any effort by a Bidder to influence the Procuring Entity in its decisions on bid evaluation during the tendering process, bid comparison, or Contract Award will result in the rejection of the Bidder's bid and subsequent blacklisting, if Procuring Entity so desires. Canvassing by any Bidder at any stage of the Tender evaluation is strictly prohibited.

#### **19. Legal Documentary Proof**

The bidder must possess valid legally enforceable exclusive authorization from the Foreign/Local Manufacturer/(OEM); they should have a documentary proof to the effect that they are the original Manufacturer of the required goods. Bidders shall establish all legal documentary proofs where required/asked by the procuring authority..

#### **20. Ineligibility for Corrupt and Fraudulent Practices**

Bidders should not be under a declaration of ineligibility for corrupt and fraudulent practices issued by any Government (Federal, Provincial), a local body or a public sector organization.

#### **21. Prevailing Rules, Regulation and Policies**

A bid once opened in accordance with the prescribed procedure shall be subject to only those rules, regulations and policies that are in force at the time of issue of notice for invitation of bids.

## **22. Alternate Bid**

Different models/ prices offered for a single equipment/item by the same bidder shall be considered as alternate bid and shall be non-responsive or any conditional bids shall be considered as technically non-responsive bids.

## **23. Letter of Authorization**

The bidder shall be manufacturer / importer or authorised agent for the quoted high-tech medical equipment, hospital furniture, Instruments, information technology equipment/items must provide an exclusive manufacturer's authorization letter or sole agency certificate duly issued by the manufacturer. documentary evidence confirming the relevant details must be provided. In case of non-compliance, the bid shall be considered as non-responsive. For miscellaneous accessories, letter of authorization is not mandatory.

## **24. Technical Staff and Tools**

The Bidder should have strong engineering background and necessary tools/ testing equipment, trained staff for the goods required after sales services.

## **25. Minor Deviation**

The Procuring Entity may waive off any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation (or changes the substance of the bid), provided such waiver does not prejudice or affect the relative ranking of any Bidder. Any item other than quoted and approved shall not be supplied to procuring entity without intimation to Supply Chain Management Department and supply shall be subject to clearance from the hospital procurement committee on recommendation of technical experts & end user. Maximum upto four (04) minor deviation are accepted subject to the above commentary. More than four (04) minor deviations will be considered as one (01) major deviation and hence bid will be considered as technically non-responsive and therefore will be rejected.

## **26. Deviation from critical provision**

Deviations from, or objections or reservations to critical provisions shall be deemed to be a material deviation from technical proposals and thus the bid will be declared as non-responsive. Any model supplied other than quoted and approved in contract will be considered as deviation/ forgery and will be rejected straightaway at the cost and risk of the supplier.

## **27. Performance of the firm**

After sale satisfactory performance certificate must be recognized from relevant forums having dispatch number, signature of the officer and date on letterhead of procuring entity. The satisfactory performance certificate of non- recognized institution with relevant forums will not be considered. Performance certificates for equipment installed under reagent rental, placement, lease, or service agreements, where the Bidder has not supplied the equipment and the Procuring Entity has not directly procured the machine, shall not be considered. Only performance certificates for equipment supplied by the Bidder through a formal procurement process and purchased by the Procuring Entity shall be accepted. The Procuring

Entity reserves the right to verify the authenticity of the submitted performance certificates, and any misrepresentation may lead to disqualification of the bidder. Details for different equipment/items are mentioned in individual technical evaluation criteria.

### **28. Extension of Contract**

The Procuring Entity can extend the contract period on the same terms and conditions for a certain period, subject to the satisfactory performance of the contractor, availability of funds, and the approval of the Competent Authority. The extension of the contract shall be made in accordance with the provisions of the Khyber Pakhtunkhwa Public Procurement Regulatory Authority Act 2012 and Rules 2014 as amended from time to time. The extension of the contract shall be made through the issuance of a written addendum to the contract prior to the expiry of the original contract period, and the contractor shall ensure the validity of the Performance Security extended till the extended period of contract duration.

### **29. After Sale Service**

Certificate from the bidder that the after sales services / backup services shall be provided in case of change of local agent, the bidder will provide the after sales services themselves or through newly appointed agent for the period mentioned from the date of commissioning.

### **30. Testing and Calibration**

The firm must have all kind of testing and calibration equipment, which is required to maintain the products, which they are dealing. The list of all required testing equipment would be provided along with the technical bid. The available testing equipment must be calibrated. The successful bidders shall provide complete technical manual and operation manual to the Supply Chain Management Department, MTI/HMC.

### **Manufacturer Official Website**

The quoted model of imported product shall be available on the current official website of the manufacturer; otherwise, the quoted product shall be considered obsolete/ redundant and will straight away be rejected.

### **31. Inspection of the Premises**

The Procuring Entity has the right to inspect the premises of bidder to inspect the setups ensuring proper after sales services, documents mentioned in technical bids and any other relevant details regarding testing tools, calibration tools, spare parts etc. by relevant technical personnel.

### **32. Opening of the Financial Proposals**

After technical evaluation is completed, the Procuring Entity shall notify the date, time and location for opening of the financial proposals. Bidders' attendance at the opening of financial proposals is optional.

### **33. Incomplete and Conditional Bids**

Incomplete/ Conditional bid shall stand rejected. All items described in the technical proposal must be priced in financial proposal. No conditional bid in term of Technical/Financial bid will be entertained and the bidder will straight away be disqualified.

### **34. Closure of Contract**

The Contract shall be considered closed upon the satisfactory completion of all contractual obligations by

the Contractor and the Procuring Entity. The Contractor shall ensure that all goods have been supplied, installed, commissioned, and accepted by the Procuring Entity in accordance with the terms and conditions of the Contract.

The closure of the Contract shall be subject to the following conditions:

- i. Submission and acceptance of all deliverables, documents, and reports required under the Contract.
- ii. Completion of installation, testing, and commissioning of equipment (where applicable).
- iii. Clearance of all payments and financial obligations between the parties.
- iv. Expiry or fulfillment of all warranty and service obligations, if applicable.
- v. Issuance of a Contract Completion / Contract Closure Certificate by the Procuring Entity.

Upon fulfillment of the above conditions, the Procuring Entity shall formally declare the Contract closed, and the Performance Security may be released in accordance with the applicable procurement rules and the terms of the Contract.

### **35. Quantity Variation**

The Procuring Entity reserves the right under the framework contract at the time of Contract award to increase or decrease the quantity of goods as per permissible limits under the Rules 2014 originally specified in Schedule of Requirements without any change in unit price or other terms and conditions.

### **36. Original Equipment Manufacturer**

The manufacturer should have documentary evidence to the effect that they are the original manufacture of the quoted product/s with indication of manufacturing site and its location.

### **37. List of Related tools / spare parts**

The details regarding tools and spare parts shall be submitted in bid which will be verified during the physical inspection. Marks will be awarded after verification & recommendation by relevant technical personnel during inspection stages.

### **38. Periodic Preventive Maintenance (PPM)**

The successful bidders are bound to provide PPM report quarterly till the comprehensive tender warranty period duly signed from the end user & Bio-medical Engineer of the procuring agency. PPM procedure shall be performed as per the guidelines of services manual.

### **39. Extended warranty**

The firms submit extended comprehensive post warranty (spare parts, accessories & services) for the High-Tech Medical Equipment/general equipment will get additional marks as mentioned in technical evaluation criteria for High-Tech and Low-Tech Medical Equipment. Details are mentioned in detailed relevant evaluation criteria for each equipment/item advertised.

### **40. Technical Bid Submission Format**

- i. All the bidders must submit the quotation in the given proforma below in PDF only.
- ii. Attached the supported documents i.e., Brochure / Catalogue and Data sheet clearly highlighted the specifications mentioned in the technical quotation along with bidding documents.

## **Technical Bid Quotation Format**

**Name of**

**Equipment /**

**Item: Model:**

**Manufacturer:**

**Country of Origin:**

**Category of equipment / item:**

**S. No in SBDs:**

**Quoted Specification of the bidder**

## Section IV. Schedule of Requirements

### **Instruction to Bidders**

- As detailed elsewhere in this document, 2 % of bid security of the total bid value of equipment / items. The mode of provision of bid security shall be in accordance with the modalities as laid down in the relevant KPPRA Rules and these bid solicitation documents (BSDs). The Bid security shall be from bank account of the bidder. Ordinary cheque and cross cheque in the form of bid security shall result in bid rejection.
- Bids must be computer typed & printed; and the offered bid prices must be written both in words & figures. Bid prices/ quotations with cutting and over-writing shall not be accepted to the extent of that particular quoted item. An authorized person of the bidder shall sign & stamp all pages of the bid having numbers on each page.
- Fully compliance with the required specifications as per Statement of Requirement is mandatory. While minor deviations may be accommodated, subject to the condition that the main functions and performance in any aspect would not be affected. More than four minor deviations will be considered as major deviation and the bidder will be considered as non-responsive for the quoted item. Sample provision is mandatory for sample-based items SCC Clause 2. The technical proposal shall contain all the details in accordance with standard specification of the items/goods mentioned in the Schedule of Requirements (SOR) and technical specifications which must be supported by catalogue/Brochures.
- In case of imported high-tech and low-tech medical equipment, the quoted items must be registered and authorized for use in the country of origin, the bidder must submit valid product registration or marketing authorization issued by the regulatory authority of the country of origin. The bidder/importer shall provide a valid authorization certificate for the quoted products issued by the manufacturer.
- All certifications as mentioned in technical evaluation criteria and data/ documents shall be valid. Committee may carry out the verifications on or before award of contract and in case of any fraudulent practice; legal action will be taken against the bidder concerned.
- Registration of the bidder with Drug Regulatory Authority of Pakistan (DRAP) for Hi-tech and Low-tech Medical equipment is mandatory and with Pakistan Nuclear Regulatory Authority (PNRA) is mandatory for all types of X Rays emission equipment.
- Non-Provision of mandatory documents mention in these BSDs shall lead to disqualification of the firm / quoted items. Non-Provision of mandatory warranty certificate (SCC Clause 9) shall lead to disqualification of the firm / quoted items.

- The downtime of any equipment will not be included in the standard warranty period.
- The bidder is bound to provide local training for at least 2 persons as end users.
- The bidding is carried out for Rate Contract through Framework Agreement and hence the quantity is not mentioned, and the supply order for each item will depend on the requirement of the procuring entity throughout the financial year 2026-27.
- The Procuring Entity, at any stage of the procurement proceedings, having credible reasons for or prima facie evidence of any defect in Supplier's capacities may require the Suppliers to provide information concerning their professional, technical, financial, legal or managerial competence.
- The Procuring Entity has the right to inspect the premises of bidder, to inspect the setups ensuring proper after sales services, verify documents (if needed) mentioned in technical bids and any other relevant details. Premises (office/workshop) of bidder shall be insured through ownership/or Rent agreement.
- The bidder shall provide the shipment trail of the quoted item from the manufacturing site till destination.
- The Unit price quoted by the bidder shall be inclusive of all applicable duties and taxes. All prices shall include relevant taxes & duties, where applicable. The benefit of exemption from or reduction in the GST or other taxes shall be passed on to the Procuring Entity.
- Alternate bid will declare as non-responsive.
- Any reservations on BSDs including special conditions, criteria, specifications etc. (if any) shall be submitted in writing in or before the Pre-bid meeting in soft form (dox,pdf) and hard form signed by authorized person/representative of the firm. The reservations not submitted in hard form will not be considered.
- **The schedule for supply of goods shall be as under:**
- Supply within ninety (90) days for imported items from the date of issuance of supply order or establishment of clean letter of credit by the Purchasing Entity.
- Supply within thirty (30) days for local items from the date of issuance of supply order by the Purchasing Entity.

### Schedule of Requirements

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery required.

Number	Description	Quantity	Delivery schedule (shipment) in weeks/months from _____ <sup>2</sup>
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- i. In case of DDP, the delivery schedule time period shall be commenced from the date of issuance of purchase order.
- ii. In case of CIF, the delivery schedule time period shall be commenced from the date of establishment of clean irrevocable letter of credit.

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<sup>2</sup> The Procuring entity must specify here the date from which the delivery schedule will start. That date should be either the date of contract award, or the date of contract signature, or the date of opening of letter of credit, or the date of confirmation of the Letter of Credit, as appropriate. The Bid Form should include only a cross-reference to this Schedule.

## Section V. Technical Specifications

<b>S. No</b>	<b>Nomenclature</b>	<b>Specifications</b>
1.		

Section VI. Sample Forms

**BID FORM 1: BID COVER SHEET**

**BID FORM 2: LETTER OF INTENTION**

**BID FORM 3: AFFIDAVIT**

**BID FORM 4: PRICE SCHEDULE FORMAT FOR FINANCIAL BID**

**(To be submitted in separate sealed envelope)**

**BID FORM 5: INTEGRITY PACT**

**BID FORM 6: CONTRACT AGREEMENT**

**(Template for information only, shall be signed with the successful Bidders only)**

**BID FORM 7: BANK GUARANTEE (Specimen)**

**Sample Forms**

1.	BID FORM AND PRICE SCHEDULES	45
2.	BID SECURITY FORM	47
3.	CONTRACT FORM	48
4.	PERFORMANCE SECURITY FORM	49
5.	BANK GUARANTEE FOR ADVANCE PAYMENT	50
6.	MANUFACTURER'S AUTHORIZATION FORM	51
7.	INTEGRITY PACT	52
8.	BID COVER SHEET	53

1. **Bid Form and Price Schedules**Date: \_\_\_\_\_  
IFB No: \_\_\_\_\_To: *[name and address of Procuring Entity]*

Gentlemen and/or Ladies:

Having examined the Bid Solicitation Documents including Addenda Nos. *[insert numbers]*, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver *[description of goods and services]* in conformity with the said Bid Solicitation Documents for the sum of *[total bid amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we will obtain the guarantee of a bank in a sum equivalent to \_\_\_\_\_ percent of the Contract Price for the due performance of the Contract, in the form prescribed by the Procuring Entity.

We agree to abide by this Bid for a period of *[number]* days from the date fixed for Bid opening under Clause 22 of the Instructions to Bidders, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Name and address of agent	Amount and Currency	Purpose of Commission or gratuity

(if none, state "none")

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
signature]\_\_\_\_\_  
[in the capacity of]

**Price Schedule in Pak. Rupees**

Name of Bidder \_\_\_\_\_ IFB Number \_\_\_\_\_ Page of \_\_\_\_\_

1	2	3	4	5	6	7
Item	Description	Country of Origin	Quantity	Unit price DDP named place	Total DDP per item	Unit price of Delivered duty paid (DDP) to final destination plus price of other incidental services if required <sup>3</sup>

Signature of Bidder \_\_\_\_\_

*Note:* In case of discrepancy between unit price and total, the unit price shall prevail.

## 2. Bid Security Form

Whereas [name of the Bidder] (hereinafter called “the Bidder”) has submitted its bid dated *[date of submission of bid]* for the supply of *[name and/or description of the goods]* (hereinafter called “the Bid”).

KNOW ALL PEOPLE by these presents that WE [name of bank] of [name of country], having our registered office at [address of bank] (hereinafter called “the Bank”), are bound unto [name of Procuring Entity] (hereinafter called “the Procuring Entity”) in the sum of for which payment well and truly to be made to the said Procuring Entity, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this \_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_.

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its Bid by the Procuring Entity during the period of bid validity:
  - a. fails or refuses to execute the Contract Form, if required; or
  - b. fails or refuses to furnish the performance security, in accordance with the Instructions to Bidders;

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

This guarantee will remain in force up to and including twenty eight (28) days after the period of bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

---

*[signature of the bank]*

### 3. Contract Form

THIS AGREEMENT made the \_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_ between *[name of Procuring Entity]* of *[country of Procuring Entity]* (hereinafter called “the Procuring Entity”) of the one part and *[name of Supplier]* of *[city and country of Supplier]* (hereinafter called “the Supplier”) of the other part:

WHEREAS the Procuring entity invited bids for certain goods and ancillary services, viz., *[brief description of goods and services]* and has accepted a bid by the Supplier for the supply of those goods and services in the sum of *[contract price in words and figures]* (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
  - (a) the Bid Form and the Price Schedule submitted by the Bidder;
  - (b) the Schedule of Requirements;
  - (c) the Technical Specifications;
  - (d) the General Conditions of Contract;
  - (e) the Special Conditions of Contract; and
  - (f) the Procuring Entity’s Notification of Award.
3. In consideration of the payments to be made by the Procuring Entity to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring Entity to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract
4. The Procuring Entity 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.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by \_\_\_\_\_ the \_\_\_\_\_ (for the Procuring Entity)

Signed, sealed, delivered by \_\_\_\_\_ the \_\_\_\_\_ (for the Supplier)

**4. Performance Security Form**

To: *[name of Procuring Entity]*

WHEREAS *[name of Supplier]* (hereinafter called “the Supplier”) has undertaken, in pursuance of Contract No. *[reference number of the contract]* dated \_\_\_\_\_ 20\_\_\_\_ to supply *[description of goods and services]* (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a bank guarantee by a reputable bank for the sum specified therein as security for compliance with the Supplier’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of *[amount of the guarantee in words and figures]*, and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

Signature and seal of the Guarantors

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*[name of bank or financial institution]*

---

*[Address]*

---

*[date]*

**5. Bank Guarantee for Advance Payment**

To: *[name of Procuring Entity]*

*[name of Contract]*

Gentlemen and/or Ladies:

In accordance with the payment provision included in the Special Conditions of Contract, which amends Clause 16 of the General Conditions of Contract to provide for advance payment, *[name and address of Supplier]* (hereinafter called “the Supplier”) shall deposit with the Procuring Entity a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of *[amount of guarantee in figures and words]*.

We, the *[bank or financial institution]*, as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Procuring Entity on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding *[amount of guarantee in figures and words]*.

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

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until *[date]*.

Yours truly,

Signature and seal of the Guarantors

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*[name of bank or financial institution]*

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*[Address]*

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*[date]*

## 6. Manufacturer's Authorization Form

[See Clause 13.3 (a) of the Instructions to Bidders.]

To: *[name of the Procuring Entity]*

WHEREAS *[name of the Manufacturer]* who are established and reputable manufacturers of *[name and/or description of the goods]* having factories at *[address of factory]*

do hereby authorize *[name and address of Agent]* to submit a bid, and subsequently negotiate and sign the Contract with you against IFB No. *[reference of the Invitation to Bid]* for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

\_\_\_\_\_  
*[signature for and on behalf of Manufacturer]*

Note: This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.

**7. INTEGRITY PACT**

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS. 10.00 MILLION OR MORE**

Contract No. \_\_\_\_\_ Dated \_\_\_\_\_ Contract Value: *[To be filled in at the time of signing of Contract]* Contract Title: \_\_\_\_\_

[name of Supplier] 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 Khyber Pakhtunkhwa (GoKP) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoKP through any corrupt business practice.

Without limiting the generality of the foregoing, [name of Supplier] 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 from GoKP, except that which has been expressly declared pursuant hereto.

[name of Supplier] 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 GoKP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[name of Supplier] 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 rights and remedies available to GoKP under any law, contract or other instrument, be voidable at the option of GoKP.

Notwithstanding any rights and remedies exercised by GoKP in this regard, [name of Supplier] agrees to indemnify GoKP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoKP in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder’s fee or kickback given by [name of Supplier] 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 GoKP.

**Name of Buyer:** .....

**Name of Seller/Supplier:** .....

**Signature:** .....[Seal]

**Signature:** .....{Seal}

### BID COVER SHEET

**Mandatory General Information of Applicant Firm NOTE: Complete filling of this form along with the provision of all requisite information is mandatory. Missing or not providing any of the requisite information may lead to dis-qualification of the bidder/s from the bidding competition without any case.**

S. No	Name of Bidding Firm	Details
1.	Please indicate whether the firm is: <ol style="list-style-type: none"> <li>a. Manufacturer, or</li> <li>b. Importer</li> </ol> Manufacturer and / or Importer and / or Authorized agent	
2.	Please indicate the category/ies under which the Firm is applying for bidding <ol style="list-style-type: none"> <li>1. High-Tech Medical Equipment</li> <li>2. Medical Furniture, (Sample Based)</li> <li>3. Instruments (Sample Based)</li> <li>4. Electrical, Electronics and Information Technology</li> <li>5. Office Furniture (Sample Based)</li> </ol>	
3.	Please provide names, attested copies of CNICs, two recent attested photographs, valid street addresses in Pakistan, all landline and mobile phone numbers of: <ol style="list-style-type: none"> <li>a. Owner/Proprietor of the Firm.</li> <li>b. Managing Director / CEO of the Firm;</li> <li>c. Focal person officially made responsible and authorized by the Firm for day-to-day official Correspondence with Supply Chain Department, MTI/HMC Peshawar.</li> </ol> (Please provide clear, legible and visible attested photocopies of all the requisite items mentioned items)	
4.	Please provide the following valid information Regarding applicant Firm: Complete Street address of the: <ol style="list-style-type: none"> <li>a. Head Office</li> <li>b. Main warehouse; and</li> <li>c. Valid &amp; working official Landline Phone and</li> <li>d. Fax Numbers; and</li> <li>e. Mobile phone numbers of the Focal Person registered against his /her CNIC No. And name; and</li> <li>f. Valid and functional Email address; Official Website address /es .</li> </ol>	

5.	<p>a. Please provide in original the bid security instrument along with the Financial Proposal in the sealed envelope in the form of valid Call Deposit Receipt / Bank Draft / Bank Guarantee of the requisite amount from a scheduled Bank of Pakistan in the name of Director General Health Services, Peshawar. Non-provision of bid Security shall render the bid as non-responsive.</p> <p>b. However, please provide an affidavit on judicial stamp paper of appropriate face value in the sealed Envelope of the technical proposal to the effect that the bid security of the required amount (without mentioning the amount of bid security) has been inside the sealed envelope of the financial bid except where flat rates in bid security have been demanded by the Directorate General Office.</p>	
6.	<p>Please provide attested copies of the following Tax related mandatory documents:</p> <p>a. National Tax Number (NTN) of the Firm (FTN) for Income Tax</p> <p>b. Last year Income Tax Return of the Firm;</p> <p>c. Sales Tax Registration Certificate of the Firm; and</p> <p>d. Certificate of Professional Tax</p>	
7.	<p>In case of being manufacturer, the Firm should provide attested copies of the following mandatory documents also:</p> <p>a. Duly attested copy of valid Certificate from Chamber of Commerce of the respective country</p>	
8.	<p>In case of being importers, the Firm should provide attested copies of the following mandatory document/s also:</p> <p>a. Valid Embassy Attested Authorization Certificate or apostille for the quoted items of category Low-Tech and High-Tech medical equipment, Medical Furniture and Instruments.</p>	
9.	<p>The bidding Firm shall also provide an Affidavit on Judicial Stamp Paper of the value of at least Rs. 100/- (Rs. One Hundred Only) for the following undertaking:</p> <p>I. I / We have carefully read the whole set of Bid solicitation Documents for this bidding competition and that I / We have fully understood and agree to all the provisions (including, but not limited to, those provided under ITB 11.5, 16.1 and 29.1 of the Bid Data Sheet), terms and conditions, evaluation criteria, mechanism of evaluation &amp; selection of items for which the Firm has applied for competition;</p>	

	<p>and</p> <p>II. I / We fully understand and agree that the bidding competition for which I / We have applied to enter in, shall be based on merit-based scoring system for the evaluation of technical bids which has inverse relationship with the rates quoted by the bidders in their financial bids submitted; and that in this situation, the lowest financial bid/s may or may not win the bidding competition; and</p> <p>III. I / we guarantee that the quoted items are, and shall be, freely available in the market of Pakistan; and particularly in the market of Khyber Pakhtunkhwa province and/or available in public and private sector health facility (ies); and</p> <p>IV. I / We shall provide to the inspection team/s of expert/s authorized for the purpose by the Directorate General Health Services Khyber Pakhtunkhwa; an uninterrupted and free access to all relevant documents, sections of the manufacturing facilities / unit, storage and warehousing facilities as well as any other area relevant, as deemed appropriate by the above-mentioned team for their purpose of visit/s.</p> <p>V. In case of any collusive, coercive, corrupt, obstructive, fraudulent practices and/or any act of misconduct by the bidding firm/focal person, in this bidding competition in relation to the decision making by the procuring entity, shall be liable to be proceeded under KPPRA Act 2012, Rules framed thereunder, and/or forfeiture of the bid security/performance guarantee of the bidding firm, and / or any other lawful action as deemed appropriate by the Government of Khyber Pakhtunkhwa, including that to be taken up with the DRAP or any other body / entity of the Federal Government; and</p> <p>VI. I / We have fully understood that the medical devices and items in the categories including other non-drug items shall be evaluated and examined by experts / consultants / end-users nominated by the Selection &amp; Rate Contracting Committee or Technical Evaluation Committee of the Government of the Health Department, Khyber Pakhtunkhwa at its sole discretion; and that the Firm shall fully agree and abide by the decision / opinion, whatsoever, of the said expert/s regarding the selection, or otherwise, of the quoted item/s for purchase / rate contracting.</p> <p>VII. I / We also undertake that submission of any</p>	
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	<p>false/bogus/fake/forged/ fabricated/tampered document shall lead to disqualification of our firm from this bidding competition as well as to other lawful action/s to be taken by the concerned authorities.</p> <p>VIII. I / We have fully understood that no such documents shall be entertained by the Procuring Entity, which is issued after due date of Bid opening.</p>	
<p><b>10.</b></p>	<p>I certify and affirm that I have attached /provided all the requisite mandatory documents / information including Bids Security with this Bid and that I fully understand that any document if not provided / missing shall result in the disqualification and declaring my bid as ineligible and thus non-responsive.</p> <p>Signatures:  Name:  CNIC No.  Designation:  Address:</p>	

## **FOR SINGLE STAGE TWO ENVELOPES ITEMS**

**THE BELOW MENTIONED CRITERIA SHALL BE APPLICABLE TO**

**SNO: 1; SURGICAL/MEDICAL EQUIPMENT,**

**SNO: 02: MEDICAL GRADE FURNITURE,**

**SNO: 03 INSTRUMENTS (IMPORTED)**

**SNO: 05 HOSPITAL FURNITURE**

<b>Technical Evaluation Criteria</b>				
<b>Submission of any false, bogus, fake, forged, fabricated, or tampered document, found at any time during or after successful bidding shall result in disqualification of the bidder from the bidding process. Furthermore, the concerned authorities shall initiate appropriate legal and administrative actions, including a minimum penalty of three (03) years blacklisting and forfeiture of the bid security.</b>				
		<b>Mandatory Requirements</b>		
	1	Verified FBR last three years Income tax returns	<b>Mandatory</b>	
	2	Verified Sales tax returns last 01 year	<b>Mandatory</b>	
	3	SECP current active registration	<b>Mandatory</b>	
	4	KPRA	<b>Mandatory if applicable</b>	
	5	PNRA	<b>Mandatory if applicable</b>	
	6	Active tax payer list verifiable from FBR online portal	<b>Mandatory</b>	
	7	Fully functional Office without biomedical workshop at Peshawar alone.	<b>Mandatory</b>	
	8	The PEC Registration of the firm shall be mandatory.	<b>Mandatory</b>	
	9	Lowest Bid Certificate (as per format with the BSDs)	<b>Mandatory</b>	
	10	Comprehensive Warranty of 03 years shall be provided as mandatory (services with parts)	<b>Mandatory</b>	
	11	Valid active Drug Regulatory Authority of Pakistan (DRPA)	<b>Mandatory if applicable</b>	

<b>NOTE: Every bidder can score once in every criteria not exceeding the maximum allocated marks. If a bidder scores zero marks in any of the listed criteria except the mandatory criteria, he will not lose his rights for participation in the bidding process.</b>			
<b>SNO.</b>	<b>Description</b>	<b>Maximum Allocated Marks</b>	<b>Marks Breakup</b>
<b>1</b>	<b>Conformance to the specification</b>		
<b>1.1</b>	Fully compliance with the required specifications as per Statement of Requirement. Minor deviations may be accommodated up to 04, subject to the condition that main function and performance in any aspect would not be affected. More than 04 minor deviations will be considered as major deviation and the bidder will be considered as non-responsive for the quoted item.	<b>Mandatory</b>	
<b>1</b>	<b>Country of Origin and Manufacturer</b>	<b>06</b>	
<b>1.1</b>	Country of Origin and Manufacturing US/France/Germany/Italy/Japan/Canada		<b>06</b>
<b>1.2</b>	Country of origin US/France/Germany/ Japan/Italy/Canada but manufacturing facility is in other country		<b>05</b>
<b>1.3</b>	Country of Origin or Manufacturing facility is in any other countries as listed above		<b>03</b>
<b>2</b>	<b>Special Features</b>	<b>08</b>	
<b>2.1</b>	04 Marks shall be allocated to the software objectively verifiable software related feature.		<b>04</b>
<b>2.2</b>	04 Marks shall be allocated to the hardware objectively verifiable hardware related feature.		<b>04</b>
<b>3</b>	<b>Product Certification</b>	<b>12</b>	
<b>3.1</b>	USFDA United states food and drug authority Certificate		<b>12</b>
<b>3.2</b>	MHLW Ministry of Health, Labor and Welfare Certificate issued by Japan.		<b>10</b>
<b>3.3</b>	CE, UKCE, Health Canadian licensing certificates shall have 08 marks.		<b>08</b>
<b>4</b>	<b>Product's Global Performance Certificate (01 certificate)</b>	<b>07</b>	<b>07</b>

4.1	Satisfactory Product's International performance certificate shall be issued by regulatory authority of the country in which the item is manufactured. Preferably from healthcare authority where the equipment has been used.		
<b>5</b>	<b>Product's Local Performance Certificate</b>	<b>15</b>	
5.1	Satisfactory performance report issued from JCI Accredited tertiary care teaching hospital inside Pakistan having minimum 500 Beds hospital, having at-least 05 years of installation. (One certificate having 15 marks)		<b>15</b>
5.2	Satisfactory performance report issued from any tertiary care teaching accredited hospital which is not meeting JCI accreditation standards including but not limited to all the MTIs inside or outside the province with minimum 500 Beds, having at-least 05 years of installation. Every certificate shall carry 04 marks each. (03 Certificates)		<b>12</b>
5.3	Satisfactory performance report issued from public sector hospital minimum having 150 beds. Every certificate shall carry 02 marks. Atleast Five Years Of Installation.		<b>06</b>
<b>6</b>	<b>Technical Staff</b>	<b>15</b>	
6.1	Bio Medical Engineer shall be PEC registered Bio Medical Engineer. The credentials should be verifiable through possible means including but not limited to company organogram, payrolls, bank statements of minimum 01-year etc. (03 Marks for each BME)		<b>09</b>
6.2	Technical staff shall have Diploma of Electrical, Electronics or Bio Medical from Technical board. The credentials should be verifiable through possible means including but not limited to company organogram, payrolls, bank statements of minimum 01 year etc. (02 Mark for each technician)		<b>06</b>
<b>7</b>	<b>Office, Workshop &amp; Warehouse as per the list below:</b>	<b>10</b>	
7.1	Fully functional Office along with well-equipped biomedical workshop (verifiable through agreements and physical verification if so desired) at Islamabad, Lahore, Karachi and Peshawar.		<b>10</b>
7.2	Fully functional Office along with well-equipped biomedical workshop (verifiable through agreements and physical verification if so desired) at Islamabad, Lahore and Peshawar.		<b>08</b>

7.3	Fully functional Office along with well-equipped biomedical workshop (verifiable through agreements and physical verification if so desired) at Islamabad and Peshawar.		06
7.4	Fully functional Office along with well-equipped biomedical workshop (verifiable through agreements and physical verification if so desired) at Peshawar alone.		04
7.5	Fully functional Office without biomedical workshop at Peshawar alone is mandatory.		<b>Mandatory</b>
8	<b>Previous Past Performance</b> Previous performance of the installed equipment with MTI-HMC, an objectively verifiable clearly documented proof of performance certificate signed by Bio Medical Engineer, End User and counter signed by Hospital Director shall be provided. It should contain all the details regarding Uptime, PPM, Downtime, Calibration, repair/ replacement of part's frequency of the quoted machine. The machine should have been in active service for minimum of 03 years. The format of the certificate is available with BSDs	10	10
9	<b>List Major Components/parts of the Inventory</b> Shall be readily available in the warehouse anywhere in Pakistan. The list of such spare parts duly verifiable through import documents and/or local warehouse logs shall be provided.	05	05
10	<b>Post Warranty with Parts &amp; Services Maintenance Percentage</b> shall be provided as Mandatory, which will be applicable after 4 <sup>th</sup> year till 10 <sup>th</sup> year. a. 0.1-1.99 % = 08 marks, b. 2-3.99 % = 07 marks, c. 4.-5.99 % = 06 marks, d. 6-9.99% = 05 marks. e. 10%-15% = 00 marks. It is mandatory to mention Post Warranty even if it is more than 10%.	08	08
11	<b>Financial soundness of the bidder/firm.</b> The marks will be allocated according to the last three years Audited Balance Sheet Duly attested by registered Chartered Accounting firm.	04	
11.1.	PKR 901 million and above		04
11.2.	PKR 701-900 Million		03

<b>11.3.</b>	PKR 501-700 Million		<b>02</b>
<b>11.4.</b>	PKR 200-500 Million		<b>01</b>
<b>11.5.</b>	Below PKR 200 Million		<b>00</b>
		<b>100</b>	

**Passing Marks shall be 70 out of 100. Technical Evaluation weight-age shall be 80% and financial weight-age shall be 20% in single stage two envelope procedures (KPPRA Rule 6 2 b) and according to KPPRA ACT 2 c i. (best evaluated bid)**

**Then financial bids shall be evaluated according to the formula as under (80/20%)**

<b>Lowest Cost Offered</b>		<b>x 100 x 0.20</b>
<b>Price Offered by the Firm to be Evaluated</b>		

### **01. SURGICAL/MEDICAL EQUIPMENT**

<b>SNO.</b>	<b>ITEM/EQUIPMENT NAME:</b>		
<b>1</b>	<b>ANESTHESIA</b>		
<b>1.1</b>	ANESTHESIA WORKSTATION		
<b>2</b>	<b>CARDIOLOGY</b>		
<b>2.1</b>	Advanced Cardiac Monitor		
<b>3</b>	<b>ORTHOPEDIC &amp; SURGICAL</b>		
<b>3.1</b>	C-ARM WITH FLAT PANEL DETECTOR		
<b>3.2</b>	C-ARM (IMAGE INTENSIFIER)		
<b>3.3</b>	OT LIGHT (DOUBLE DOME WITH BUILT IN CAMERA AND RECORDING SYSTEM)		

3.4	OPERATION THEATER LIGHT (DOUBLE DOME) WIHTOUT CAMERA		
3.5	Motorized beds		
3.6	Laparoscopic Hand Instruments /Stacks		
3.7	Orthopaedic operating tables with built in Traction		
3.8	Orthopaedic operating tables with external Traction		
3.9	Radiolucent Orthopaedic Operation table (Fluorescent Orthopaedic operating Table:)		
3.10.	Surgical Tourniquet Specifications ( Adult)		
3.11	Surgical Tourniquet Specifications ( Paediatric)		
3.12	Battery-Driven Orthopedic Bone Drill – Specifications		
3.13	High-Speed Electric Motor Burr System – Spine Surgery		
<b>4</b>	<b>RADIOLOGY EQUIPMENT</b>		
4.1	INTERVENTIONAL RADIOLOGY ANGIOSUITE ANGIOGRAPHY		
4.2	DIGITAL COLOR DOPPLER (MID END)		
4.3	DIGITAL COLOR DOPPLER (HIGH END)		
4.4	Floor Portable/Mobile Ultrasound Machine		
4.5	128 Slice CT Scan System		
4.6	Digital Mobile X-Ray Machine with Battery Backup		
4.7	Digital Radiography System		
<b>5</b>	<b>PEADS</b>		
5.1	VEIN FINDER		
5.2	ECHOCARDIOGRAPHY MACHINE		
5.3.	Blood Gas Analyzer (Capillary Option Available)		

5.4	Point-of-Care Ultrasound (POCUS) Machine		
5.5	Defibrillator Machine		
5.6	HFOV		
5.7	Portable Monitor		
5.8	Portable Ventilator		
6	<b>ICU MECHANICAL VENTILATOR</b>		
7	<b>COMPUTERIZED HAEMODIALYSIS Machine with RO System</b>		
	<b>NEUROLOGY EQUIPMENT</b>		
8.1	NCS/EMG MACHINE		
8.2	EEG MACHINE		
9	<b>Neurosurgery Equipment</b>		
9.1	OT Table Neurosurgery Carbon Frame Extensions attachments		
9.2	Mayfield head holding system for Neurosurgery		
9.3	Electrosurgical Unit		
9.4	Neurosurgery Crainatome Drill		
10	<b>Pathology Department</b>		
10.1	Blood Bank Refrigerator 2 °C to 6 °C		
10.2	FFP (Fresh Frozen Plasma) Refrigerator -30 °C to -40 °C (adjustable)		
10.3	Laboratory Refrigerator (-20C To -30C )		
10.4	Biological Refrigerator 2-8 °C		
10.5	Plasma Freezer -30 to -40 °C		

10.6	Automated Tissue Processor		
10.7	Tissue Embedding console System		
10.8	Tissue Flotation Water Bath		
10.9	Dual Head Teaching Microscope with Camera		
10.10	Multiheaded Teaching Microscope with camera and led screen		
<b>ITEM NAME WITH MTL-HMC REQUIRED SPECIFICATIONS</b>		<b>FIRM QUOTED SPECIFICATIONS</b>	<b>Reference/ Annexure/ Page No.</b>
<b>1</b>	<b>ANESTHESIA DEPARTMENT</b>		
<b>1.1</b>	<b>ANESTHESIA WORKSTATION</b>		
<b>1</b>	Model:		
<b>2</b>	Make:		
<b>3</b>	Country of Origin:		
<b>4</b>	Country of Manufacturer:		
<b>5</b>	Post Warranty Series & Maintenance Percentage		
<b>6</b>	<b>TECHNICAL SPECIFICATIONS</b>		
<b>7</b>	Anesthesia Machine with Ventilator and Modular Patient Monitor		
<b>8</b>	•3 Gas System having O <sub>2</sub> ,N <sub>2</sub> O and air		
<b>9</b>	•Machine having three or more drawers (or as per OEM)		
<b>10</b>	•Pin index Cylinder yokes for O <sub>2</sub> and N <sub>2</sub> O		
<b>11</b>	•Pipeline and Cylinder Gauges for O <sub>2</sub> ,N <sub>2</sub> O and Air		
<b>12</b>	•Central gas driven Unit, fresh gas outlet and O <sub>2</sub> flush control (Min 35-50L/min)		
<b>13</b>	•4 Antistatic castors, with brake system		
<b>14</b>	•Monitor Shelf		

15	•Electronic Display/ Mechanical Controlled Flow Meter O2, N2O and Air with hypoxic guard with no less than 25% O2 concentration		
16	•O2: Minimum 0 to 15 Liters/Minute		
17	•N2O: Minimum 0 to 10 Liters/Minute		
18	•Air: Minimum 0 to 15 Liters/Minute		
19	•Auxiliary O2		
20	•1350 ml or better Absorber capacity, fully Autoclavable, including Bag/Vent Switch, CO2 bypass and Manometer Gauge. Complete with mounting Bracket. Absorber detachable (reusable) including Fresh Gas Hose.		
21	•Vacuum suction along with jar on machine		
22	•Anesthesia machine should be Modular design and Modules can be swapped in both Anesthesia and Monitor. (As per OEM)		
23	NMT monitor shall be present alongwith anesthesia machine/workstation		
24	•Heated Breathing System		
25	•Electronic/mechanical Fresh gas Display		
26	•2 stage adjustable LED Light		
27	•Slectatec backbar with interlocking function for minimum two vaporizers or more		
28	•O2 Vaporizer: Isoflurane & Sevoflurane (Supplied by same Manufacturer)		
29	•Four Electrical outlet sockets (As per OEM)		
30	•The unit should include Active / Passive anesthesia Gas Scavenging system		
31	•Independent ACGO Function		
32	•Emergency Oxygen cylinder for backup on machine		
33	<b>Built-in Anesthesia Ventilator:</b>		

34	•Advanced Anesthesia Ventilator with Adult, Child and Neonatal capability		
35	•Electronic / Microprocessor Controlled and Pneumatically driven		
36	•Display: Large 15" or better full color TFT/LCD Display, Touch –Screen display parameters, all settings and Alarm Parameters with Back-up touch pad.		
37	<b>Ventilation Modes:</b>		
38	•Manual/ Spontaneous Ventilation		
39	•Volume Control VCV (IPPV/mode)		
40	• Pressure Control PCV with volume guarantee or equivalent		
41	•SIMV Volume Control + SIMV Pressure Control		
42	•Pressure Support with Apnea		
43	•Cardiac Bypass Mode		
44	<b>Ventilation Monitoring:</b>		
45	•Fio2		
46	•Inspired and Expired Volume		
47	•Monitor Interface Capability		
48	•Spirometer Loops		
49	•PAW, Pressure Waveform, Flow Waveform		
50	•Inverse I:E 4:1 - 1:8 or better (As per OEM)		
51	•Gas Specific input connector (Oxygen) ISO standard		
52	•Tidal Volume: Minimum 10 to 1500ml		
53	•BPM Rate: Minimum 4 to 100 bpm		
54	•PEEP: off, Minimum 3 to 30mH2O		
55	•Pressure Inspired: Minimum 05cm to 60cm H2O		
56	•Pressure Limit: Minimum 10 to 100cmH2O		

57	•Pressure Support Range: Minimum 05 to 40 cm H2O		
58	<b>Power Supply:</b> 220V/50HZ AC		
59	<b>Battery Backup:</b> Minimum 90 mins		
60	<b>User Set Alarm:</b>		
61	•Air Pressure High		
62	•Air Pressure Low		
63	•MV High		
64	•MV Low		
65	•High Oxygen		
66	•Low Oxygen		
67	<b>Static Alarms</b>		
68	•Apnea		
69	•Power Fail		
70	•Battery Low		
71	Supplied Complete with Hose and Power Cable		
72	<b>Multi Gas Monitoring Module for Anesthesia Workstation</b>		
73	•Side-stream measurements with accessories such as sampling line and water trap.		
74	•Method: Infrared / Absorption Gases: Agent Halothane, Isoflurane, Enflurane, Sevoflurane and Desflurane CO2, N2O and O2		
75	•Automatic Anesthesia Agent Identification display		
76	•User selectable Alarm limits		
77	<b>Vital Sign Monitor Attached with Anesthesia Machine</b>		
78	•Monitor should be Modular support with ETCO2, IBP and Basic function support ECG. NIBP, TEMP, RESP, HR, SPO2, ST Analysis built in.		

79	•At least 7 parameter Anesthesia Patient monitor		
80	•It should have 15” or more TFT LCD touch display with 12 waveforms or better.		
81	•It should have following as standard configuration: ECG, HR, RESP, NIBP, SPO2 and TEMP, ST analysis, ETCO2, 2xIBP Diathermy/electro surgical protection.		
82	•Should have alarms for warnings		
83	•Trend: Store and review 48 hours or more		
84	<b>Standard Accessories Adult &amp; Paeds:</b>		
85	•5 Lead patient cable ECG, Software for both 3 & 5 lead monitoring		
86	•SPO2 connecting cable		
87	•SPO2 Reusable finger sensor for adult, pediatric and neonate each		
88	•NIBP connecting Hose with cuff for adult, pediatric and neonate each		
89	•Temperature probe peripheral		
90	•Main cable		
91	•ETCO2 Accessory		
92	•Instruction manual		
93	•2 IBP cable for IBP monitoring with 5 disposable domes		
94	<b>Battery:</b>		
95	•Operating time under the normal use and full charge: 04 hours or more		
96	<b>Power supply:</b>		
97	•Power Voltage: 220V-240V 50/60 Hz		
98	•Battery backup Minimum 90mins		
99	•Monitor, Vaporizer must be supplied from same manufacture as of Anesthesia Main Unit		

100	Anesthesia circuits Adult ( Brain Mapleson A+ ventilator), 10 each should be provided		
101	Peadiatric circuit (Ayrst Piece + ventilator) 10 each should be included.		
102	Voltage stabilizer for equipment protection to be included in AGM Machine.		
2	<b>CARDIOLOGY</b>		
2.1	<b>Advanced Cardiac Monitor (HL-7 or E gateway equivalent optional)</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>NOTE:</b>		
7	<b>TECHNICAL SPECIFICATIONS</b>		
8	Cardiac Monitor (7 parameter ECG, SpO2, NIBP, Dual IBP, TEMP, Resp, ETCO2)		
9	Multi Parameter Patient Monitor		
10	(5ch ECG, SpO2, NIBP, Dual IBP, TEMP, Resp.,ETCO2)		
11	• Display for easy Viewing 15" or more color TFT/LCD/ LED for easy set-up(with all parameters display)		
12	• ECG, SpO2, NIBP, 2-IBP, 2-TEMP, and Respiration		
13	• EtCO2 (Side stream type / main stream with basic accessories)		
14	• 15 or more Arrhythmias analysis should be detected and alarmed		
15	• Multi-lead ECG algorithm		

16	• S-T/QT Analysis		
17	• Pacemaker detection.		
18	• IBP cable and sensor kit		
19	• Up to 72 hours of graphic and tabular trend of all parameters,		
20	PERFORMANCE:		
21	Heart rate: 30 ~ 300 bpm or better on either sides And Ped/Neo:15-350bpm or better (5% +/- deviation in numerical values shall be acceptable)		
22	Respiration		
23	• Respiration rate: 4~150bpm or better on either side.		
24	SPO2:		
25	• Range: Minimum 30 ~ 100% on either side		
26	• Neonate and adult probe.		
27	Temperature:		
28	• Range; Minimum 10 -45 0C(50 - 113F) on either side		
29	NIBP:		
30	• Range; 30-260 mmHg ( ± 10% mmHg )		
31	GENERAL:		
32	Alarm		
33	• Alarm: All parameters on/off selective independently		
34	• Power input 220VAC,50Hz		
35	• With Battery Backup time: Minimum 90 minutes		
36	ACCESSORIES:		
37	• ECG 5 Lead cable. 01		
38	• Disposable Electrodes Adult, Neonate &Paeds. 20 Each		

39	• SPO2 Finger sensor with fixed or detachable extension (each for adult, Paeds and neonate) cable of minimum 3-meter length. 01 Each		
40	• NIBP Reusable Neonate, Paeds& Adult Cuff 01 Each		
41	• NIBP Hose 01		
42	• AC power code 01		
43	• Ground cable 01		
44	• Operation Manual 01		
45	• ETCO2 (Side stream) with basic acc. 01		
46	• IBP Cable 01		
47	• Temperature sensor & cable 01		
48	Local / Imported wall mounted stand		
49	• With one monitor holding capacity		
50	• With basket for accessories		
51	• Rust free material with powder coating		
52	• Adjustable angles for different views. (up/down and right lift)		
<b>3</b>	<b>ORTHOPEDIC &amp; SURGICAL</b>		
<b>3.1.</b>	<b>C-ARM WITH FLAT PANEL DETECTOR</b>		
<b>1</b>	Model:		
<b>2</b>	Make:		
<b>3</b>	Country of Origin:		
<b>4</b>	Country of Manufacturer:		
<b>5</b>	Post Warranty Series & Maintenance Percentage		
<b>6</b>	<b>TECHNICAL SPECIFICATIONS</b>		

7	Mechanical motion requirements for C-Arm:		
8	Motorized Vertical travel: Minimum 40cm		
9	Horizontal travel: Minimum 18cm		
10	Rotation of C-arm: Minimum +/- 120 deg. with safety stop.		
11	Source to Image intensifier distance (SID): Minimum 95 cm		
12	having entrance screen of Cesium Iodine /CMOS TECH OR EQUIVALENT		
13	Flat panel detector of Minimum 20cm x 20cm (8" x 8") with resolution of 1k x 1k pixels		
14	Image rotation should be digital having reversible option as well.		
15	Automatic Fluoro dose control		
16	X- ray generator:		
17	At least 15 KW		
18	Max X-Ray tube current Minimum 120 mA		
19	Max X-ray tube Voltage Minimum 110kv		
20	X-Ray Tube		
21	X-ray tube of dual focal dUAL FOCAL SPOT WITH Minimum 300 KHU spot 0.5 and 1.5 (300 KHU) (As per OEM)		
22	Must have rotating anode		
23	X-ray tube voltage Minimum 110kv		
24	Should have inherent filtration		
25	Collimators should have side shutters		
26	Fluoroscopy output:		
27	Minimum 40-110 KV		
28	Low dose management system		

29	Minimum mA range 1 to 15 mA on low dose		
30	Minimum mA range 1 to 15mA on continuous		
31	Image processing:		
32	Dual monitors for diagnostic image quality display with one 10 inches or more touch screen for better handling on a separate trolley. (alongwith 31" single large display)		
33	Minimum Resolution should be 1280 x 1024 pixels		
34	The system should have automatic dose level selection.		
35	Contrast ratio should be Minimum 500:1 (As per OEM)		
36	Maximum light output Minimum 500 cd/m <sup>2</sup> (As per OEM)		
37	Image storage of Minimum 10000 images and cine memory.		
38	It should have image annotation facility; measuring of distances and angles, support of DICOM 3.0 functions.		
39	Laser localizer lights cross beam type consist of a flat detector laser and a single tank laser. The laser set supports radiation-free positioning of the patient. All lasers should be activated via touch user interface.		
40	Noise reduction filter, last image hold, frame integration and DICOM interface DICOM functionalities to be included as standard:		
41	DICOM Storage Commitment		
42	DICOM Print		
43	DICOM Modality Worklist		
44	DICOM MPPS		
45	DICOM Query/ Retrieve		
47	System must have DSA with 25fps		
48	Pixel Pitch: 155µm or less		
49	Minimum DQE: Equal or Greater than 70 %		
50	Minimum A/D Conversion: 14 bit		

<b>3.2</b>	<b>C-ARM (IMAGE INTENSIFIER)</b>		
<b>1</b>	Model:		
<b>2</b>	Make:		
<b>3</b>	Country of Origin:		
<b>4</b>	Country of Manufacturer:		
<b>5</b>	Post Warranty Series & Maintenance Percentage		
<b>6</b>	<b>TECHNICAL SPECIFICATIONS</b>		
<b>7</b>	Mechanical motion requirements for C-Arm:		
<b>8</b>	Motorized Vertical travel: Minimum 40cm or more		
<b>9</b>	Horizontal travel: Minimum 18cm		
<b>10</b>	Rotation of C-arm: Minimum +/- 120 deg. with safety stop.		
<b>11</b>	Source to Image intensifier distance (SID): Minimum 95 cm		
<b>12</b>	Image Intensifier		
<b>13</b>	should have at least triple field Minimum 9" input diameter		
<b>14</b>	having entrance screen of Cesium Iodine		
<b>15</b>	TV camera should be of high resolution at least 1k x 1k		
<b>16</b>	TV camera type should be CCD		
<b>17</b>	Image rotation should be digital having reversible option as well.		
<b>18</b>	X- ray generator:		
<b>19</b>	At least Minimum 15 KW		
<b>20</b>	Max X-Ray tube current Minimum 120 mA		
<b>21</b>	Max X-ray tube Voltage Minimum 110kv		
<b>22</b>	X-Ray Tube		
<b>23</b>	X-ray tube of dual focal spot Minimum 0.5 and 1.5 (300		

	KHU)		
24	Must have rotating anode		
25	X-ray tube voltage 110kv		
26	Should have inherent filtration		
27	Collimators should have side shutters		
28	Fluoroscopy output:		
29	Minimum 40-110 KV		
30	Low dose management system		
31	mA range Minimum 0.1 to 9 mA on low dose		
32	mA range Minimum 0.2 to 18mA on continuous		
33	Image processing:		
34	Minimum Two 19" LCD monitors for diagnostic image quality display with minimum 7inches touch screen for better handling.		
35	Resolution should be <i>minimum</i> 1280 x 1024 pixels		
36	The system should have automatic dose level selection.		
37	Contrast ratio should be Minimum 500:1		
38	Maximum light output Minimum 500 cd/m <sup>2</sup>		
39	Image storage of Minimum 10000 images and cine memory.		
40	It should have image annotation facility; measuring of distances and angles, support of DICOM 3.0 functions.		
41	System must have DSA with 30fps		
3.3	<b>OT LIGHT (DOUBLE DOME WITH BUILT IN CAMERA AND RECORDING SYSTEM)</b>		
1	Model:		
2	Make:		

<b>3</b>	Country of Origin:		
<b>4</b>	Country of Manufacturer:		
<b>5</b>	Post Warranty Series & Maintenance Percentage		
<b>6</b>	<b>TECHNICAL SPECIFICATIONS</b>		
<b>7</b>	Double Dome LED type Ceiling OT light		
<b>8</b>	The light shall adopt latest LED technology to create a homogeneous light patch		
<b>9</b>	Light intensity shall be adjustable at least between 5%-100% at different levels.		
<b>10</b>	The light shall be with 3 lighting modes for different surgery requirements, including general lighting mode, full lighting mode and ambient lighting mode for minimally invasive surgery.		
<b>11</b>	Control panel Touch screen/Touch pad should be equipped beside the lighthouse as standard configuration for ergonomic user experience.		
<b>12</b>	The light head shall be shape to avoid laminar flow influence by turbulence.		
<b>13</b>	The light shall be mountable to ceiling from a single center. Light head bearing the arms shall be rotate-able 360 degrees around its own axis and mounting point. Each Light head shall be rotate-able at least 360 degrees around its own axis		
<b>14</b>	The maximum movement angle of the spring arm shall be at least up 45° and down 50°		
<b>15</b>	The maximum movement range of the horizontal arm & spring arm should be at least 1,600 mm.		
<b>16</b>	The thickness of the light head shall be no more than 50mm		
<b>17</b>	Each LED shall be replaceable individually with the new one to save cost in case of failure, instead of replacing the module with several LEDs as per manufacturer.		
<b>18</b>	<b>TECHNICAL REQUIREMENTS</b>		
<b>19</b>	Specifications Requirements for the Main and Satellite Light		

20	Central illuminance at 1m distance $\geq$ Minimum 160,000 lx		
21	Light Field Diameter at 1m distance adjustable from Minimum 120~300mm		
22	Color Temperature (K) Minimum 4,350K		
23	Color Rendering Index Ra $\geq$ Minimum 96		
24	Color Rendering Index Minimum R9 $\geq$ 97		
25	Minimum Depth of Illumination $\geq$ 1,000mm		
26	Minimum Dimming Range: 5~100%		
27	Minimum Radiant energy( $E_e/E_c$ (average)) $\leq$ 3.6mW/(m <sup>2</sup> *lx)		
28	Minimum LED Service Life: $\geq$ 50,000hrs		
29	Power Supply: 100~240VAC, 50~60Hz		
30	Digital video recorder of OT Light:		
31	Supporting external USB storage device		
32	Default with camera control function		
33	Supporting video recording from other medical devices source		
34	Light Camera to be Fixed in one Dome of Light:		
35	The camera system integrated with the surgical lights also provides a platform for medical research purpose, teaching communication and video documenting.		
36	Two Mega Pixels HD (1920×1080 pixels) Camera		
37	Lens 10x optical zoom. f= 3.8 mm (wide) to 38 mm (tele) F1.8 to F3.4		
38	Picture Quality Full HD 1080p (1920 * 1080).		
39	Minimum Digital Zoom 12x (120x with optical zoom)		
40	Output HD SDI		
41	26" inches or better Medical grade LED on third arm should be provided		

42	Supporting HDMI/YPbPr/HD-SDI/DVI-D/VGA input signal,		
43	Video output: Component / YPbPr /DVI /VGA		
44	Autoclaveble light handles for manuevering.		
3.4	<b>OPERATION THEATER LIGHT (DOUBLE DOME) WIHTOUT CAMERA</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Double Dome LED type Ceiling OT light		
8	The light shall adopt latest LED technology to create a homogeneous light patch		
9	Light intensity shall be adjustable at least between 5%-100% at different levels.		
10	The light shall be with 3 lighting modes for different surgery requirements, including general lighting mode, full lighting mode and ambient lighting mode for minimally invasive surgery.		
11	Control panel Touch screen should be equipped beside the lighthouse as standard configuration for ergonomic user experience.		
12	The light head shall be shape to avoid laminar flow influence by turbulence, with Verified Certificate Din-1946 Part 4.		
13	The light shall be mountable to ceiling from a single center. Light head bearing the arms shall be rotateable 360 degrees around its own axis and mounting point. Each Light head shall be rotatable at least 360 degree around its own axis		

14	The maximum movement angle of the spring arm shall be at least up 45° and down 50° or better		
15	Each LED shall be replaceable individually with the new one OR COMPLETE MODULE WILL BE CHANGED to save cost in case of failure, instead of replacing the module with several LEDs.		
16	TECHNICAL REQUIREMENTS		
17	Specifications Requirements for the Main and Satellite Light		
18	Minimum Central illuminance at 1m distance $\geq 160,000$ lx		
19	Minimum Light Field Diameter at 1m distance adjustable from 120~300mm		
20	Minimum Color Temperature (K) 4,350K		
21	Minimum Color Rendering Index Ra $\geq 96$		
22	Minimum Color Rendering Index R9 $\geq 97$		
23	Minimum Depth of Illumination $\geq 1,200$ mm		
24	Minimum Dimming Range: 5~100%		
25	Minimum Radiant energy (Ee/Ec (average)) $\leq 3.6$ mW/(m <sup>2</sup> *lx)		
26	Minimum LED Service Life: $\geq 60,000$ hrs		
27	Power Supply: 100~240VAC, 50~60Hz		
3.5	<b>Motorized beds</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	COUNTRY OF MANUFACTURING & ORIGIN:		
5	Post Warranty Series & Maintenance Percentage		

6	NOTE:		
7	03 Years Standard Warranty with parts.		
8	<b>Technical Specification Clinical Purpose</b>		
9	A full electric hospital bed for home use features electric motor controls that raise the head, foot and height of the bed frame with a push of a button. These full electric hospital beds allow patients to dial in their desired bed height without the aid of a caretaker, making transfers to and from a bed easier.		
10	Manual		
11	4 motors		
12	Electronic adjustments of backrest, footrest, height		
13	Trendelenburg and Reverse Trendelenburg functions		
14	Fowler, Vascular and Cardiac positions		
15	Auto-contour		
16	Function-Lock System to prevent unauthorized use		
17	Angle indicator for backrest adjustment and		
18	Trendelenburg positions		
19	Auto-regression system		
20	Electronic CPR		
21	Auto-CPR button + manual		
22	Lockable and fold-away PP side rails		
23	Lockable and detachable Polypropylene head and foot boards		
24	4 section, detachable mattress platform		
25	Electrostatic powder coated metal frame		
26	Gradually adjustable footrest		
27	Drainage bag hooks at both sides		

28	IV pole sockets located at four corners		
29	Protective plastic corner bumpers		
30	Central lockable castors		
31	Height adjustable stainless steel IV pole		
32	Power 200-240VAC, 1.5A max, 50-60 Hz		
33	Electrical shock protection, Class 1, Type B		
34	Liquid ingress protection, IPX4-IP66		
35	Battery backup		
36	Minimum Overall length 210cm		
37	Minimum Overall width 99 cm		
38	Minimum Height Range 35-75cm		
39	Minimum Trendelenburg 0-15		
40	Minimum Reverse Trendelenburg 15		
41	Minimum Back rest angle maximum 70		
42	Minimum Leg rest angle maximum 35		
43	Minimum Caster diameter 15cm		
44	Minimum Safe working load 250 Kg		
45	Stainless steel IV Pole		
46	Oxygen bottle holder		
3.6	<b>Laparoscopic Hand Instruments /Stacks</b>		
	<b>3D and 4k both acceptable</b>		
	<b>Instruments as per OEM, qty shall be quoted vis a vis.</b>		
	<b>Compatible with both 4k and 3D.</b>		
1	<b>Model:</b>		

2	<b>Make:</b>		
3	<b>Country of Origin:</b>		
4	<b>Country of Manufacturer:</b>		
5	<b>Post Warranty Series &amp; Maintenance Percentage</b>		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	LAPAROSCOPIC HAND INSTRUMENTS WITH STACK		
8	Full 4K High quality imaging processing Camera Control Unit 4k		
9	UHD Resolution 4096 x 2160 Pixel for live display, progressive scan		
10	Built in Recording system, storage of high resolution images and		
11	Videos on USB storage media		
12	Integrated special imaging modes for easier tissue differentiation		
13	Aspect ratio 16: 9		
14	Touch screen Control Panel, remote control, USB		
15	Direct Printing support for collecting Patients data for teaching purposes		
16	2 x HDMI 4K port		
17	Compatible for Flexible scopes attachment		
18	White balance Color Temperature range 2300 -8000 k		
19	4K CAMERA HEAD (QTY 01)		
20	Progressive Scan, 50 Hz, with 4 or 2 freely programmable Camera Head buttons		
21	Each button with two functions		
22	3x1/3 inch CMOS image sensor		
23	Lens, C-mount 24mm		

24	Cable length 3meter		
25	Cable outlet 30°		
26	Light sensitivity (max. gain) < 0, 7 Lux		
27	Weight of camera head 121 g		
28	Number of video sensors (in pieces) 3 Pieces		
29	Size per chip in inches 1/3 inch		
30	Maximum native resolutions 4096 x 2160 Pixel		
31	Camera head cable length 300cm		
32	Spare camera head cable must be quoted Mandatory to quote (Qty 02)		
33	Camera head and eyepiece snap in coupling and cable can be replaceable on site		
34	ZOOM LENS F 13-29mm C mount Snap on lock (Qty 01)		
35	LED LIGHT SOURCE 300watt (Qty 01)		
36	High Power LED providing highest energy efficiency and light output, guaranteed homogeneous illumination due to innovative LED-fiber light cable coupling, LED life time 30000h, color temperature approx. 6500K, continuous electronic light intensity control, super silent operation, CF isolation rating, power supply		
37	Types of light modules: LED		
38	Automatic damming of light when light cable is removed		
39	Automatic restart when electrical power intrusion		
40	FIBER LIGHT CABLE FOR 4K COMPATIBLE (Qty 01)		
41	Fiber light cable ø 5mm tl 3m /adapter endoscope side /adapter projector side /		
42	MEDICAL LCD MONITOR 4K 31-32" (QTY 01) SAME MANUFACTURER		
43	LED backlight illumination, Optical Contrast Panel (IPS, incl. Power Cable, low-voltage cable, external power supply		

	Special customized color setting Standard settings can be loaded.		
44	High brightness Optical Contrast Panel™ with 1000 cd/m <sup>2</sup> and		
45	Contrast 1000:1. Slim housing with narrow bezel for a wider display area.		
46	Fully equipped with 3G-SDI, DVI and analog inputs.		
47	TV standard (SD): PAL, NTSC, automatic switch over,		
48	Support 4k Resolution:(4096 x 2160 ) Pixel / pixels , Aspect		
49	Ratio: 16: 9, Aspect Ratio: 16: 9, Display color: 16.700.000, Contrast ratio: 1.000: 1 Brightness: 1000 Cd/m <sup>2</sup> (typical), Response time: 7 ms 15 ms (grey-to-grey),		
50	mounting: 100 x 100, Angle of view: 89° /Down 89° / right Signal Input (HD)		
51	3G-SDI / HD-SDI / SDI (BNC 2x in/1x out), DVI-D (2x in/1x out), 1xRGB via HD15 / D-SUB, 15pin = VGA Input Video input / output (SD) Y/C (S-VHS 1x in), Composite (FBAS, BNC 1x in)		
52	Monitor mount /arm (Qty 01)		
53	for LCD-Monitors, unit mounting		
54	Camera head mount/camera holding bracket (Qty 01)		
55	Light source cable mount/light cable holder (Qty01)		
56	IMPORTED TROLLEY FROM SAME MANUFACTURER (Qty 01)		
57	Basic electric. 220-230vac		

58	Universal video trolley with Monitor Bridge to hold a monitor mount. Including a monitor mount 100, a back panel and integrated cable duct. 3 shelves (370mm wide), 2 individually adjustable. 4 double caster wheels, 2 featuring a double lock (direction lock/free wheel/total lock). 2 wheels electrical conductive. Interfaces for support arms and installation of extensive accessories. RAL 9016, aluminum side profile. Dimensions (WxHxD): 720 x 1520 x 700mm. Trolley includes a BASIC- ELECTRICS 220-240V / 2000VA, consisting of: Electronic housing (basic), cut-off module (electronic) and device socket block with 12 sockets and integrated main switch module, 6 device power cable."		
59	Drawer assembly during production (Qty 01)		
60	Pul out keyboard with mouse pad (Qty 01)		
61	Spacer between monitor & monitor stand (Qty 01)		
62	Infusion bottle holder (Qty 01)		
63	Co2 bottle holder 10ltr (Qty 01)		
64	Holder for hand held remote control or camera head connector (Qty 01)		
65	Online ups 10kva (Qty 01)		
66	SUCTION AND IRRIGATION PUMP (QTY 01)		
67	irrigation pump for hys/uro/lap		
68	Touch Screen display		
69	For Laparoscopy, Endo-urology and hysteroscopy, fluid		
70	Management of irrigation fluid into the uterus as well as		
71	The upper and lower urinary tract as well as the suction		
72	Irrigation function in the abdomen, with automatic instrument identification, 6.5" Touch Screen color display, compatible with core nova, connection for footswitch, HYS: max. Irrigation capacity 800ml/min, max. Irrigation pressure 200mmHg; URO: max. Irrigation capacity 800ml/min, max. Irrigation pressure 90mmHg; LAP: max. Irrigation capacity 1800ml/min, U: 100-240VAC, 50/60Hz, Dim (wxhxd)		

	300x157x436mm		
73	foot switch (Qty 01)		
74	irrigation tube set spike, reusable (Qty 20)		
75	suction container 2ltr (Qty 01)		
76	INSUFFLATOR 45 Ltr/Mint with gas heating (Qty 01)		
77	insufflator / power cable / insufflation tube /hygiene filters sterile (pack=10 pcs.) / With gas heating 6-7" or Better Color display Touchscreen Max. Flow rate 45 l / min Functional and user-friendly design Optional configurable software modules CO2 pressure tube, Length 1.5 m (150 cm) Pressure reducer CO2		
78	hygiene filters sterile (pack=10 pcs.) (qty 01)		
79	<b>LAPAROSCOPIC INSTRUMENTS MANDATORY TO BE QUOTED FROM THE SAME MANUFACTURER.</b>		
80	Telescope 4k 0° Ø 10MM WL 305MM rigid, TL 375mm,		
81	Telescope 4k 30° Ø 10MM WL 305MM rigid, TL 375mm,		
82	Trocar sleeve 5.5mm		
83	Trocar tip triangular sz 5.5mm wl 169mm		
84	Trocar pyramidal tip 5.5mm		
85	Trocar sleeve 10mm		
86	Trocar pyramidal tip 10mm		
87	Trocar tip triangular sz 10mm wl 169mm		
88	Guide rod 5.5 mm TL 500 mm		
89	Multifunctional suction irrigation system set		
90	Suction irrigation tube Ø 5 mm WL 310 mm		

<b>91</b>	Suction irrigation handle		
<b>92</b>	Sealing cap		
<b>93</b>	Instrument sleeve 10 mm WL 170 mm		
<b>94</b>	Atraumatic grasping forceps mono Ø 5 mm		
<b>95</b>	Plate-shaped grasping forceps Ø 10 mm		
<b>96</b>	Grasping forceps bipo Ø 5.5 mm		
<b>97</b>	Hook electrode mono Ø 5 mm		
<b>98</b>	Needle forceps Ø 2 mm WL 160 mm		
<b>99</b>	Monopolar HF cable		
<b>100</b>	Bipolar HF cable		
<b>101</b>	Telescope 4k 0° Ø 5.3 mm WL 303 mm		
<b>102</b>	Telescope 4k 30° Ø 5.3 mm WL 303 mm		
<b>103</b>	Maryland diss. Forceps mono ø 5mm 3		
<b>104</b>	Biopsy forceps mono Ø 5 mm		
<b>105</b>	Dissector forceps Ø 10 mm		
<b>106</b>	Uterus manipulator Ø 36 mm		
<b>107</b>	Uterus probe Ø 5 mm		
<b>108</b>	Colpotransilluminator vacuum tube		
<b>109</b>	Irrigation tube L 0.6 m		
<b>110</b>	VERES cannula Ø 2.3 mm WL 250 mm		
<b>111</b>	Light tube for MILOS method Ø 10 mm		
<b>112</b>	Instrument channel for 5 mm instruments		
<b>113</b>	Tube with Luer-Lock connector		
<b>114</b>	Babcock forceps ø 5mm 3 part, sl 330mm		
<b>115</b>	Maryland diss. Forceps ø 10mm 3 part, sl		

116	Metzenbaum scissors mono ø 5mm		
117	Grasping forceps mono ø 5mm 3 part, sl 330mm (juhan)		
118	Gallblader intest. Grasp. Forceps ø 5mm 3 part, sl 330mm		
119	Bowl grasping forceps ø 5mm 3 part, sl 330mm		
120	Toothed grasping forceps mono ø 5mm 3 part, sl 330mm		
121	Clip-applicator ø 10 mm 340 mm nl		
122	Guide sleeve		
123	Needle holder ø 5mm, 2 part, sl 340mm (straight)		
124	Needle holder ø 5mm curved left		
125	Needle holder ø 5mm curved right		
126	Hemolock applier small		
127	Hemolock applier medium		
128	Hemolock applier large		
129	Claw grasping forceps ø 10mm 3 part, sl 330mm		
130	Spoon forceps ø 10mm 3 part, sl 330mm		
131	Suction-irrigation tube wl 290mm		
132	Hook electrode, ø 5 mm, hf monop. WI 340 mm		
133	Cannula for injection ø 4.7mm wl 350mm		
134	Introduction sleeve sz 5.5mm wl 45mm		
135	Instrument sleeve and extractor, 10/5,5, wl170mm		
136	Knot pusher ø 5mm wl 330mm		
137	by Buess, with distal notch and lateral opening, atraumatic tip for use as a probe, TL 380mm, for extracorporeal knots, reusable		
138	Sealing cone ø 10-12mm for subcutaneous fascia suture, reusable		
139	Sealing cone ø 12-15mm for subcutaneous fascia suture,		

	reusable		
<b>140</b>	Needle forceps ø 2.45mm wl 160mm		
<b>141</b>	With single action jaw to carry suture diameter 2 mm, wl 160 mm		
<b>142</b>	Sheath tube insulated ø 5mm sl 330mm		
<b>143</b>	Sealing cap cap 3.4-5.1mm (pack of 10)		
<b>144</b>	For telescopes and trocar diameter more than 3,4 up to 5,1 mm, blue		
<b>145</b>	Sealing cap cap 9.5-10.1mm (pack of 10)		
<b>146</b>	For telescopes and trocar diameter more than 9,5 up to 10,1 mm, red		
<b>147</b>	Camera head disposable cover		
<b>148</b>	Tissue retractor straight, ø 5 mm 320 mm wl		
<b>149</b>	Container (wxhxd) 700x75x120mm		
<b>150</b>	Holds: Instruments, for sterilization (steam and low-temperature), storage and transport, with instrument mat, inner dimensions (wxhxd): 700x73x120mm, outer dimensions (wxhxd): 766x92x186mm		
<b>151</b>	Cleaning spray		
<b>152</b>	Lubrication oil		
<b>153</b>	Cleaning brush ø 5mm tl 400mm		
<b>154</b>	Fiber light cable ø 5mm tl 3m /adapter endoscope side /adapter		
<b>155</b>	Debaquey forceps mono Ø 5 mm bndl		
<b>156</b>	Hook scissors mono Ø 5 mm		
<b>157</b>	Gastric band manipulator Ø 5 mm		
<b>158</b>	Dissector forceps Ø 10 mm angled double action		
<b>159</b>	Grasping forceps Ø 10 mm pick mouth double action		

160	Grasping forceps Ø 10 mm 2/3 jaws single action		
161	Claw grasping forceps Ø 10 mm		
162	Spoon forceps Ø 10 mm		
163	Stapler head grasping forceps Ø 10 mm angled 30 degree		
164	Injection cannula Ø 3 mm WL 340 mm		
165	Surgical probe Ø 5 mm WL 448 mm graduated		
166	Myoma drill Ø 5 mm WL 320 mm		
167	Myoma drill Ø 10 mm		
168	Perforated basket for standard telescope 10 mm 30°		
169	Perforated basket for standard telescope 10 mm 0°		
170	Perforated basket for standard telescope 5mm 30°		
171	Perforated basket for standard telescope 5mm 0°		
3.7.	<b>Orthopedic Operating Table with Built-in Traction</b>		
	Built in, minimum 6.6 ft up by motor		
1	<b>General Description</b>		
2	<b>“Mobile Radiolucent Orthopedic Operating Table with Integrated Bilateral Traction System for Trauma Surgery (Hip, Femur, Tibia &amp; Long Bone . spine surgery Procedures)</b>		
3	The system shall be a <b>mobile, radiolucent orthopedic surgical table</b> with <b>integrated traction mechanism</b> designed for trauma surgeries including:		
4	Femur fractures		
5	Intertrochanteric & subtrochanteric fractures		
6	Tibial shaft fractures		
7	Pelvic & acetabular fixation		

8	IM nailing & hip fracture procedures		
9	Spine surgery		
10	The table must allow <b>precise traction, positioning, and unobstructed C-arm imaging.</b>		
11	<b>Construction &amp; Material</b>		
12	Tabletop: <b>Full carbon fiber radiolucent</b>		
13	Base & column: Medical grade <b>stainless steel or powder-coated alloy</b>		
14	Mattress: Anti-static, waterproof, pressure-relief foam		
15	Seamless antimicrobial upholstery		
16	Rustproof and corrosion-resistant finish		
17	(Full carbon fiber tops allow unobstructed fluoroscopy during orthopedic trauma procedures.)		
18	<b>Mobility &amp; Base Design</b>		
19	Mobile base with <b>4 heavy-duty lockable castors</b>		
20	Foot-operated central braking system		
21	Low-profile base compatible with C-arm entry		
22	Side/end column design preferred for maximal imaging access		
23	<b>4. Tabletop &amp; Positioning Features</b>		
24	<b>Parameter</b>		
25	Table Length $\geq 200$ cm		
26	Table Width 50–60 cm		
27	Height Adjustment 70–110 cm (electric/hydraulic)		
28	Trendelenburg $\pm 15^\circ$		
29	Lateral Tilt $\pm 15^\circ$		
30	Longitudinal Slide $\geq 20$ –30 cm		

31	Back Section Adjustable $\pm 70^\circ$		
32	Leg Section Detachable / adjustable		
33	(These ranges align with commonly used orthopedic fracture tables allowing optimal positioning.)		
34	<b>Traction System (Integrated – Mandatory)</b>		
35	The table must include <b>built-in traction assembly</b> for long bone surgeries:		
36	<b>Traction Capabilities</b>		
37	Independent <b>left and right limb traction</b>		
38	Fine traction adjustment (micrometer or gear system)		
39	Quick release traction mechanism		
40	Option for <b>skin traction and skeletal traction</b>		
41	Adjustable traction force indicator		
42	<b>Accessories</b>		
43	Radiolucent leg spars (bilateral)		
44	Traction boots (pair)		
45	Skeletal traction attachment		
46	Perineal post with padding		
47	Well-leg holder		
48	Abductor bars (radiolucent)		
49	(Traction footplates, perineal post and well-leg holder are standard components in orthopedic fracture tables.)		
50	<b>6. Imaging Compatibility</b>		
51	Fully <b>C-arm compatible</b>		
52	Unobstructed AP & lateral imaging		
53	Radiolucent tabletop and traction spars		
54	No metal obstruction in imaging zone		

55	(Carbon-fiber radiolucent construction is essential for intraoperative fluoroscopy.)		
56	<b>7. Load Capacity &amp; Safety</b>		
57	Minimum safe patient weight: $\geq 180\text{--}220$ kg		
58	Electro-hydraulic and manual override safety system		
59	Emergency stop & mechanical backup lowering		
60	Stable base with anti-tip design		
61	(Common orthopedic tables support ~400 lb / 181 kg patients.)		
62	<b>8. Control System</b>		
63	Hand-held remote or column control panel		
64	Smooth electro-hydraulic actuation		
65	<b>9. Required Standard Accessories</b>		
66	The system must be supplied with:		
67	1. Radiolucent traction frame (bilateral)		
68	2. Traction boots (pair)		
69	3. Perineal post with padding		
70	4. Well-leg holder assembly		
71	5. Pelvic support pads		
72	6. Sacral rest support		
73	7. Radiolucent arm board (pair)		
74	8. Anesthesia screen frame		
75	9. Safety straps & pads		
76	10. Spare mattress covers		
77	<b>10. Electrical Requirements</b>		
78	Power Supply: 220–240 V, 50/60 Hz		

79	Rechargeable battery backup (minimum 30–45 minutes)		
80	Leakage current protection compliant with IEC standards		
3.8	<b>Orthopedic Traction Operating Table with traction accessories. (External)</b>		
1	<b>For Trauma &amp; Long Bone Orthopedic Procedures, spine surgery</b>		
2	<b>1. General Description</b>		
3	Mobile orthopedic <b>operating/traction table</b> suitable for:		
4	Hip fractures		
5	Femur nailing		
6	Tibial and long bone fracture fixation		
7	Pelvic and acetabular surgeries		
8	Spine surgeries.		
9	Designed for <b>C-arm compatible imaging</b> with full radiolucent tabletop and column.		
10	<b>2. Structural Requirements</b>		
11	1. Table type: Mobile electro-hydraulic orthopaedic fracture/traction table		
12	2. Base: Stable T-shaped or equivalent low-profile base		
13	3. Column: Fully radiolucent or X-ray compatible carbon-fiber/aluminium alloy		
14	4. Tabletop: Modular segmented top with radiolucent carbon-fiber construction		
15	5. Load capacity: $\geq 200\text{--}250$ kg (minimum)		
16	6. Table length: approx. 1900–2100 mm		
17	7. Table width: approx. 480–550 mm		
18	Radiolucent tops and traction attachments are standard in		

	orthopedic tables to allow imaging during surgery.		
<b>19</b>	<b>3. Mobility &amp; Stability</b>		
<b>20</b>	Mobile base with heavy-duty castors (minimum 4, lockable)		
<b>21</b>	Central locking or floor-lock stabilization system		
<b>22</b>	Easy maneuverability within OR		
<b>23</b>	<b>4. Positioning &amp; Adjustment (Electro-Hydraulic)</b>		
<b>24</b>	The table must provide powered adjustments:		
<b>25</b>	<b>Movement      Minimum Requirement</b>		
<b>26</b>	Height adjustment 700–1100 mm		
<b>27</b>	Trendelenburg / Reverse $\geq 25\text{--}30^\circ$		
<b>28</b>	Lateral tilt $\geq 15\text{--}20^\circ$		
<b>29</b>	Longitudinal slide $\geq 300$ mm		
<b>30</b>	Back section up/down $\geq +70^\circ / -40^\circ$		
<b>31</b>	Leg section removable Yes		
<b>32</b>	Electro-hydraulic controls and horizontal sliding allow better C-arm access and ergonomic workflow.		
<b>33</b>	<b>5. Traction System (Mandatory)</b>		
<b>34</b>	<b>Must include:</b>		
<b>35</b>	Orthopedic traction attachment system (integrated or compatible)		
<b>36</b>	Boot traction system (bilateral)		
<b>37</b>	Skeletal traction attachment provision		
<b>38</b>	Radiolucent leg spars / traction arms		
<b>39</b>	Independent limb positioning with:		
<b>40</b>	Flexion / extension		

41	Abduction / adduction		
42	Rotation control		
43	Traction accessories stabilize and position limbs during fracture reduction and fixation.		
44	<b>6. Imaging Compatibility</b>		
45	Fully radiolucent tabletop and column		
46	Unobstructed C-arm access (AP & lateral views)		
47	Carbon-fiber or X-ray translucent material preferred		
48	Radiolucency improves intraoperative fluoroscopic visualization of pelvis, hip, and long bones.		
49	<b>7. Control System</b>		
50	Hand-held wired remote control		
51	Optional foot control panel		
52	Emergency manual override		
53	One-touch return to neutral position		
54	<b>8. Accessories (Standard Set Required)</b>		
55	The following accessories must be supplied:		
56	<b>Positioning &amp; Support</b>		
57	Perineal post (adult, padded)		
58	Well leg holder		
59	Arm boards (pair)		
60	Shoulder supports		
61	Lateral body supports		
62	Safety straps		
63	<b>Traction Accessories</b>		
64	Traction boots (pair – adult)		

65	Tibial traction upright		
66	Femoral traction support hooks		
67	Radiolucent traction spars (left & right)		
68	These components are typical standard accessories supplied with orthopedic fracture tables.		
69	<b>9. Safety Features</b>		
70	Battery backup (minimum 30–60 minutes)		
71	Anti-collision safety mechanism		
72	Auto-level reset function		
73	Overload protection system		
74	<b>10. Materials &amp; Finish</b>		
75	Base & column: Medical grade stainless steel / aluminum alloy		
76	Tabletop: Carbon fiber composite (radiolucent)		
77	Mattress: Pressure-distributing, anti-static, X-ray permeable padding		
78	Radiolucent and pressure-distributing padding is required to prevent pressure injury and maintain imaging clarity.		
79	<b>11. Power Requirements</b>		
80	Power supply: 220–240 V, 50/60 Hz		
81	Rechargeable battery backup with charger		
82	Low-noise electro-hydraulic system		
3.9	<b>Fluorescent Orthopedic operating Table:</b>		
1	TECHNICAL SPECIFICATIONS		
2	The table top should be 100% radiolucent material & X-Ray access		

<b>3</b>	5 Section table plate or better		
<b>4</b>	Load capacity should be no less than 400kg or better		
<b>5</b>	The table pad should be double layered and not soft but can be molded by the figure of the patient to deliver even counterforce and reduce the possibility of ulcer, and it should be water-proof and anti-static material and can be washed by water directly; each joint should be sealed by ultrasonic not glue and sewing.		
<b>6</b>	The thick of mattress should be more than 66.5mm		
<b>7</b>	Remote Control Operated		
<b>8</b>	It should have a battery inside the table, which can work 50-80 operations for two weeks and the battery should be standard configuration.		
<b>9</b>	It should have electric longitudinal shift function not less than 300mm or better.		
<b>10</b>	It should have an build-in elevator.		
<b>11</b>	The rails & the column of the table should be made of high level of aluminum alloy.		
<b>12</b>	Minimum Length of the table >2050 mm		
<b>13</b>	Minimum Width of the table with rails >500 mm		
<b>14</b>	Minimum The thickness of mattress >75mm		
<b>15</b>	Electric Function		
<b>16</b>	Minimum The lowest position >750 mm		
<b>17</b>	Minimum The highest position <1000mm		
<b>18</b>	Minimum Longitudinal shift > 300 mm		
<b>19</b>	Minimum Turn left > 20°		
<b>20</b>	Minimum Turn right > 20°		
<b>21</b>	Minimum Trendelenburg position > 30°		
<b>22</b>	Minimum Reverse Trendelenburg position > 30°		

23	Minimum Back plate up position $>75^{\circ}$		
24	Minimum Back plate down position $>38^{\circ}$		
25	Minimum Flex position $>210^{\circ}$		
26	Minimum Re-flex position $>100^{\circ}$		
27	<b>Mechanical Function</b>		
28	Minimum Head plate up $>45^{\circ}$ o		
29	Minimum Head plate down $>90^{\circ}$		
30	Minimum Build-in elevator $>120$ mm		
31	Minimum Leg plate up $>20^{\circ}$		
32	Minimum Leg plate down $>90^{\circ}$		
33	Minimum Leg plates spread $>180^{\circ}$		
34	Accessories		
35	A pair of arm boards with 2 clamps & 4 bands, and it has the universal coupling for up & down & rotary function.		
36	Anesthesia frame with 2 tubes & 1 clamp.		
37	Orthopedics Extension accessories		
38	Trolley for the whole Orthopedics extension accessories		
39	One piece of pelvis plate with radiolucent material		
40	Adaptor for connecting the pelvis plate with the operating table		
41	One counter traction post		
42	One leg support (Pair)		
43	One traction boot (Pair)		
44	One traction screw device with support bar		
45	A pair of Elongation bar with articulation combined the long side with short side.		
46	Other accessories for prone position of orthopedics		

<b>3.10.</b>	<b>Surgical Tourniquet Specifications ( Adult)</b>		
	1. Type		
<b>A</b>	<b>Pneumatic Tourniquet – most common in modern operating rooms</b>		
<b>B</b>	<b>ELECTRICAL/DIGITAL (Automatic / Digital)</b>		
<b>1</b>	· Can be <b>upper limb or lower limb</b>		
<b>2</b>	· Provides <b>controlled inflation pressure</b> to occlude arterial blood flow temporarily		
<b>3</b>	2. Components		
<b>4</b>	1. <b>Tourniquet cuff</b>		
<b>5</b>	o Wraps around the limb		
<b>6</b>	o Inflatable bladder inside		
<b>7</b>	o Outer material: <b>nylon / polyurethane-coated fabric</b>		
<b>8</b>	o Inner bladder: <b>medical-grade rubber or silicone</b>		
<b>9</b>	2. <b>Pressure control unit</b>		
<b>10</b>	o Manual or digital display		
<b>11</b>	o Adjustable pressure		
<b>12</b>	o Safety alarms for <b>leakage, overpressure, or long duration</b>		
<b>13</b>	3. <b>Tubing</b>		
<b>14</b>	o Connects cuff to the pressure unit		
<b>15</b>	o Flexible, kink-resistant		
<b>16</b>	4. <b>Power supply</b>		
<b>17</b>	o Battery-operated or manual		
<b>18</b>	o Backup battery recommended for power failure		
<b>19</b>	3. Cuff Specifications		

20	<b>Parameter</b>	<b>Adult</b>		
21	Limb circumference	24–40 cm (upper arm), 40–60 cm (thigh)		
22	Cuff width	10–15 cm (upper limb), 15–18 cm (lower limb)		
23	Bladder material	Silicone / Rubber		
24	Outer material	Nylon or Polyester		
25	Max pressure	300–350 mmHg		
26	Inflation time	< 30 sec		
27	6. Safety Features			
28	·	Pressure alarm if:		
29	o	Leaking cuff		
30	o	Overpressure (>20 mmHg above set limit)		
31	o	Underpressure		
32	·	Emergency manual deflation		
33	·	Digital timers (recommended)		
34	·	Soft padding to reduce skin / nerve injury		
35	7. Additional Specifications			
36	·	Weight of cuff: 300–500 g (adult), 100–250 g (pediatric)		
37	·	Reusable or disposable options available		
38	·	Easy to clean and sterilize (autoclavable if reusable)		
3.11	<b>Surgical Tourniquet Specifications ( Paediatric)</b>			
	Type			
A	·	<b>Pneumatic Tourniquet – most common in modern operating rooms</b>		
B	·	<b>Pneumatic (Automatic / Digital) Tourniquet – most common in modern operating rooms</b>		

1	· Can be <b>upper limb or lower limb</b>		
2	· Provides <b>controlled inflation pressure</b> to occlude arterial blood flow temporarily		
3	Components		
4	1. <b>Tourniquet cuff</b>		
5	o Wraps around the limb		
6	o Inflatable bladder inside		
7	o Outer material: <b>nylon / polyurethane-coated fabric</b>		
8	o Inner bladder: <b>medical-grade rubber or silicone</b>		
9	2. <b>Pressure control unit</b>		
10	o Manual or digital display		
11	o Adjustable pressure		
12	o Safety alarms for <b>leakage, overpressure, or long duration</b>		
13	3. <b>Tubing</b>		
14	o Connects cuff to the pressure unit		
15	o Flexible, kink-resistant		
16	4. <b>Power supply</b>		
17	o Battery-operated or mains		
18	o Backup battery recommended for power failure		
19	Cuff Specifications		
20	Parameter <span style="float: right;">Pediatric</span>		
21	Limb circumference 10–24 cm (upper arm), 20–40 cm (thigh)		
22	Cuff width 5–8 cm (upper limb), 8–12 cm (lower limb)		
23	Bladder material Silicone / Rubber		
24	Outer material Nylon or Polyester		

25	Max pressure 200–250 mmHg		
26	Inflation time < 30 sec		
27	Safety Features		
28	· Pressure alarm if:		
29	o Leaking cuff		
30	o Overpressure (>20 mmHg above set limit)		
31	o Underpressure		
32	· Emergency manual deflation		
33	· Digital timers (recommended)		
34	· Soft padding to reduce skin / nerve injury		
35	Additional Specifications		
36	· Weight of cuff: 300–500 g (adult), 100–250 g (pediatric)		
37	· Reusable or disposable options available		
38	· Easy to clean and sterilize (autoclavable if reusable)		
3.9	<b>Battery-Driven Orthopedic Bone Drill – Specifications</b>		
1	<b>Type</b>		
2	· <b>Cordless / Battery-Powered Surgical Drill</b>		
3	· Used for:		
4	o Drilling bone for screws, K-wires, pins		
5	o Preparing holes for plates, prostheses		
6	o Low- and high-speed orthopedic drilling		
7	Components		
8	1. <b>Handpiece</b>		
9	o Ergonomic, lightweight (approx. 400–600 g)		

10	o Sterilizable (autoclavable) detachable head or sheath		
11	o Forward/reverse rotation		
12	2. <b>Battery Pack</b>		
13	o Rechargeable Lithium-Ion (Li-ion)		
14	o Voltage: <b>12–18 V</b>		
15	o Runtime: 60–90 minutes per full charge		
16	o Quick-charge capability (30–60 min)		
17	o Battery indicator (LED display)		
18	3. <b>Motor Unit</b>		
19	o Brushless motor preferred (longer life, quieter, more torque)		
20	o Variable speed control		
21	4. <b>Chucks / Attachments</b>		
22	Quick-release chuck		
23	Compatible with:		
24	Drill bits (2–6 mm)		
25	K-wire bits		
26	Screw taps / reamers		
27	Autoclavable attachments		
28	Technical Specifications		
29	Feature	Typical Value / Range	
30	Rotation speed	0–3000 RPM (variable)	
31	Torque	1–3 N·m (adjustable or variable by load)	
32	Forward / Reverse	Yes	
33	Drill bit compatibility	1.5–6 mm (cortical, cancellous, K-wire)	

34	Chuck type	Quick-release / Keyless		
35	Battery type	Li-ion, 12–18 V, 2–3 Ah		
36	Battery runtime	60–90 min continuous		
37	Charging time	30–60 min fast charge		
38	Weight	400–600 g (handpiece only)		
39	Sterilization	Autoclavable (handpiece cover / sheath, attachments)		
40	Noise	<70 dB (quiet operation preferred)		
41	4. Safety Features			
42	·	<b>Automatic shutoff</b> on overload		
43	·	<b>Reverse function</b> to remove screws or K-wires		
44	·	<b>Battery charge indicator</b>		
45	·	<b>Temperature protection</b> to prevent overheating		
46	·	<b>Lightweight ergonomic handle</b> to prevent fatigue		
47	5. Ergonomics			
48	·	Pistol grip or straight grip design		
49	·	Anti-slip coating		
50	·	Balanced weight to reduce operator fatigue		
51	·	LED light on drill head (optional) for illumination of surgical field		
52	Applications			
53	·	Adult and pediatric orthopedic surgery		
54	·	Trauma surgery (plates, screws, K-wires)		
55	·	Spine surgery (pedicle screws, pins)		
56	·	Arthroplasty preparation		
57	·	Minor bone procedures in orthopedic ORs		

<b>58</b>	Optional Accessories		
<b>59</b>	· Foot pedal control (for hands-free operation)		
<b>60</b>	· Sterilizable drill bits set		
<b>61</b>	· Battery charging station (for multiple batteries)		
<b>62</b>	· Drill guides for precision screw placement		
<b>63</b>	· Light attachment for deep operative fields		
<b>3.13</b>	<b>High-Speed Electric Motor Burr System – Spine Surgery</b>		
<b>1</b>	Type		
<b>2</b>	· High-speed <b>electric surgical burr system</b> (corded or battery-assisted)		
<b>3</b>	· Used in spine surgery for:		
<b>4</b>	o Laminectomy / laminotomy		
<b>5</b>	o Foraminotomy		
<b>6</b>	o Facetectomy		
<b>7</b>	o Bone removal near neural elements		
<b>8</b>	o Drilling pedicles or preparing bone surfaces		
<b>9</b>	Components		
<b>10</b>	1. <b>Handpiece</b>		
<b>11</b>	o Ergonomic, lightweight (approx. 300–500 g)		
<b>12</b>	o Compatible with high-speed burr bits (cutting, diamond, or micro burrs)		
<b>13</b>	o Rotational speeds adjustable via control unit		
<b>14</b>	2. <b>Motor Unit / Control Console</b>		
<b>15</b>	o Electric motor with <b>variable speed control</b>		

16	o Foot pedal or hand trigger control		
17	o Digital display for speed, torque, and mode		
18	o Safety features: overload, temperature control		
19	3. <b>Burrs / Bits</b>		
20	o Stainless steel, tungsten carbide, or diamond-coated		
21	o Sizes: 2–8 mm typical		
22	o Shapes: round, cutting, diamond, tapered		
23	o Sterilizable or single-use options		
24	4. <b>Tubing / Power Cables</b>		
25	o Sterilizable or covered with sterile sheath		
26	o Foot pedal connected via cable (if used)		
27	3. Technical Specifications		
28	Feature Typical Range / Value		
29	Rotation speed 40,000 – 80,000 RPM (high-speed for spine)		
30	Torque 0.2 – 2 N·m (adjustable based on burr size)		
31	Burr compatibility 2–8 mm diameter (various shapes)		
32	Handpiece weight 300–500 g		
33	Noise <70 dB preferred		
34	Power source Electric (110–240 V AC) or battery-assisted (Li-ion)		
35	Sterilization Autoclavable handpiece covers and burrs		
36	Control Foot pedal or hand trigger		
37	Irrigation Optional integrated irrigation for cooling bone and burr		
38	Safety Automatic shut-off on overload / overheating		
39	Safety Features		

40	· Overload protection to prevent <b>motor burn-out</b>		
41	· Temperature monitoring to prevent <b>thermal injury to bone or neural tissue</b>		
42	· Ergonomic handpiece to reduce <b>surgeon fatigue</b>		
43	· Sterile covers for infection control		
44	· Foot pedal allows <b>precise control of speed / activation</b>		
45	6. Burr Specifications		
46	· <b>Cutting burrs:</b> cylindrical or round, stainless steel		
47	· <b>Diamond burrs:</b> for fine bone removal near neural structures		
48	· Diameter: 2–8 mm		
49	· Length: 15–40 mm		
50	· Rotational speed: 20–80k RPM		
51	· Autoclavable or single-use disposable		
52	· Compatible with both manual and powered handpieces		
53	Ergonomics & Usability		
54	· Lightweight, well-balanced handpiece (reduces tremor)		
55	· Easy burr exchange mechanism		
56	· Optional LED illumination integrated in handpiece		
57	· Low vibration for precision		
4	<b>RADIOLOGY DEPARTMENT EQUIPMENT</b>		
4.1	<b>INTERVENTIONAL RADIOLOGY ANGIOSUITE ANGIOGRAPHY</b>		
1	<b>Model:</b>		

2	<b>Make:</b>		
3	<b>Country of Origin:</b>		
4	<b>Country of Manufacturer:</b>		
	<b>TECHNICAL SPECIFICATIONS</b>		
1	INTERVENTIONAL RADIOLOGY ANGIOSUITE ANGIOGRAPHY		
2	1. <b><u>OPTION 1:</u></b>		
3	All Firms Must quote their latest Model, Series and Version, which will be verified by their website and also from the date of their first FDA as well Any Predicate Model, Version will be disqualified.		
4	2. <b><u>OPTION 2:</u></b>		
5	Machine from 2020 onwards may also be acceptable.		
6	C-Arm		
7	Mount: Ceiling		
8	Plane: Single		
9	Movement:		
10	Minimum LAO/RAO +/- 120		
11	Minimum CC +/- 90		
12	C-Arm Sliding (RAO/LAO)		
13	Minimum Rotation speed (Deg per sec) 50		
14	3 C-arm working positions (head, right and left side of table)		
15	2D & 3D rotational scan at head-end and table side working positions		
16	Minimum C-Arm Depth: 86 cm		
17	Collision monitoring		
18	Minimum Auto positioning: 30 positions		

19	Iso-centric height: Variable/fixed		
20	Motorized + Manual parking		
21	Detector		
22	Type Flat		
23	Detector size 30 x 40cm/40 x 40cm		
24	Minimum Matrix: 2480 x 1920 / x 16 bits		
25	Pixel size: 150 or less		
26	Minimum Spatial resolution 2.6 lp/mm		
27	Temperature stabilizer		
28	Minimum DQE is 75%		
29	Removable Grid		
30	Intervention Table		
31	Minimum Length: 280		
32	Minimum Weight limit + CPR: 275 kg		
33	Lt/Rt pivotal rotation: +/- 90 Deg		
34	Minimum Longitudinal travel/Stroke: 1200 mm		
35	Lateral travel/Stroke: Preferable		
36	Longitudinal tilting: Preferable		
37	X-Ray Generator		
38	Type High frequency		
39	Power rating, kW at 100 kVp 100 kW		
40	Radiographic mA : 1 - 1,000 mA		
41	Minimum Radiographic kV: 40 - 125 kV		
42	Minimum Fluoroscopic mA: Upto 140 mA		
43	Fluoroscopic kV: 40 - 125 kV		

44	Cine range, fps: 3 - 30 fps		
45	Radiographic rating at 100 KV: 1000 mA		
46	TUBE:		
47	Grid switch technology		
48	Low dose technology/Automatic dose reduction - LATEST		
49	Focal points: Double or more		
50	Heat storage capacity > 5 MHU effective and actual/real both.		
51	Heat dissipation rate > 1500 KHU/min		
52	Copper filtration		
53	Cooling system		
54	Minimum Acquisition , processing and display at: 2480 x 1920 at 16 bits		
55	Parallel processing capability/multitasking		
56	Minimum Hard disk capacity: 50,000 frames at 1024 x 1024		
57	DICOM: 3.0		
58	Real time filtering and Road map function		
59	Digital pulse fluoroscopy: 3 - 30fps		
60	Minimum scene length of cine storage at 1024 x 1024 matrix: 10 sec		
61	DSA package with acquisition rate of 1 -7.5 fps		
62	Default storage of images		
63	Cine Acquisition rates: upto 30 fps		
64	Dose monitoring		
65	Dose reporting in DICOM		
66	Display of scene directory from exam and control rooms		
67	Radiation free positioning of collimators by means of last image hold		

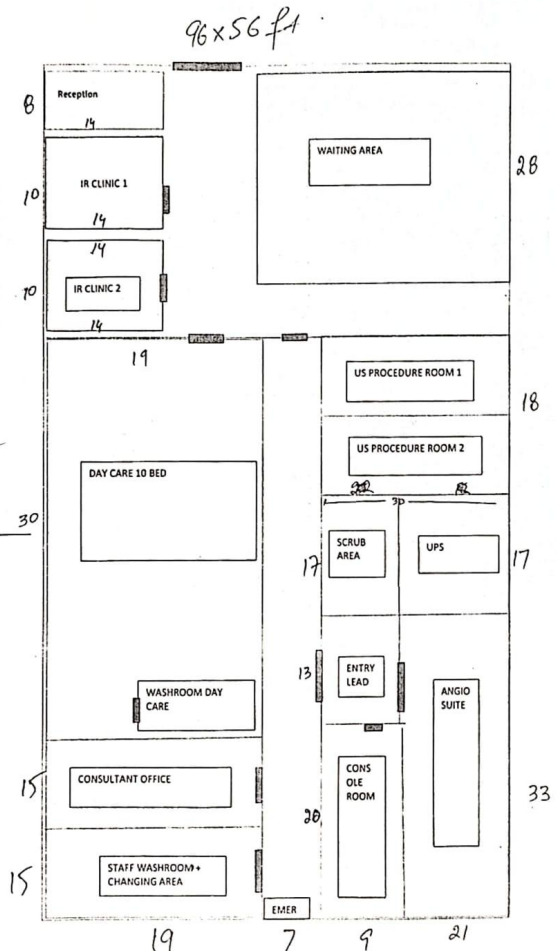
68	Display of measured dose area product		
69	Monitoring of skin entry dose		
70	Vessel analysis		
71	Automatic positioning of the C-arm corresponding to reference image and vice		
72	Simultaneous display of fluoroscopy and reference image and superposition		
73	"Facility of review previous studies (Angio, CT, MR) in examination room from old		
74	CDs/DVDs"		
75	Zero dose positioning/Dose saving applications - latest		
76	Post acquisition images manipulation and quantification		
77	<b><u>Examination Viewing</u></b>		
78	Number: Single		
79	Minimum Size: 56 inch		
80	Ceiling suspended for angiography and related surgical procedure		
81	Mount: ceiling		
82	Medical grade screen LED		
83	Minimum No of simultaneous inputs: 6		
84	Minimum Resolution: 4k/8 Megapixel		
85	Minimum Viewing angle: 160 degree		
86	Control Room Viewing.		
87	Size: 24 inch or more QTY 2		
88	Medical grade LED with 1920 x 1080		
89	Minimum Size: 24 inch		
90	Medical grade LED with 1920 x 1080		

<b>91</b>	Controls		
<b>92</b>	All controls in exam room		
<b>93</b>	All controls in control room		
<b>94</b>	"Integrated touch screen table side control having hemodynamic monitoring		
<b>95</b>	System, display setting, acquisition frames and stenosis analysis."		
<b>96</b>	Wireless foot paddle		
<b>97</b>	Workstation		
<b>98</b>	From same OEM		
<b>99</b>	With the LATEST hardware and software package, licenses and upgrades. Should run all modalities including MR, CT and Angio.		
<b>100</b>	Should have DVD recorder		
<b>101</b>	Networking with the MIS and PACS		
<b>102</b>	Should have Integrated intercom system from OEM		
<b>103</b>	Software Packages		
<b>104</b>	2D roadmap navigation package possibility of Zoom and Pan during Road MaP		
<b>105</b>	3D DSA, DA		
<b>106</b>	3D high contrast and CT like soft tissue imaging		
<b>107</b>	3D imaging of vascular structures		
<b>108</b>	3D road map – with automatic motion compensation		
<b>109</b>	3D roadmap with overlay of 3D volumes with live image		
<b>110</b>	Cone beam CT – possible from 3 side gantry position		
<b>111</b>	3D rotation Angio		
<b>112</b>	"CT like soft tissue imaging – with dual phase acquisition, off-center imaging		

113	for organs like liver."		
114	3D image visualization and manipulation features are controlled at table side on the tableside touch screen panel		
115	3D vessel analysis control at tableside possibly using tableside touch screen panel		
116	Quickly perform two-point vessel measurements on 3D volume image on tableside touch screen panel		
117	Tumor segmentation on 3D volume image on tableside touch screen panel		
118	3D volume image projection store and recall functions are controlled on table side touch screen panel		
119	Cone Beam CT metal artifact and noise reduction		
120	Step by step guidance/instructions with graphical pictures on screen in procedure room for easy room and patient setup preparation for 3D Acquisition		
121	Table tracking capability		
122	Automated vessel analysis		
123	Automatic loop replay		
124	Automatic positioning of the c-arm corresponding to the reference images		
125	Automatic and Manual pixel shift imaging		
126	Dynamic pre and post PTA comparison		
127	Dynamic real time pan/zoom		
128	Dynamic Real time image processing/enhancement		
129	Automatic marking of points or lines on 3D volume image and overlay on live image		
130	Online gray scale correction		
131	Parallel patient processing and multitasking		
132	Quantitative vessel analysis		

133	Simultaneous display of fluoroscopy and reference dynamic loop		
134	Standard quantification packages		
135	Needle guidance		
136	Tumor feeding vessel guide or equivalent		
137	Fusion package with other imaging modalities		
138	Bolus chase		
139	Streak/metallic artifact reduction in cone beam CT		
140	Motion compensation, noise réduction, image enhancement		
141	Digital marking of vessels/vascular branches		
142	Radiation Protection		
143	"Radiation protection: should have Ceiling mounted Glass lead		
144	Lower body radiation protection flaps"		
145	Room lead lining		
146	Programmable Injector: with 100 disposable syringes		
147	Laser printer		
148	writable DVDs		
149	Lead glass window (Pb eq 2.1 or more)		
150	Lead aprons 6		
151	Apron hanger 6		
152	thyroid shields 6		
153	lead goggles 06 (light weight)		
154	Lead Caps		
155	Online UPS (160 kVA or better): for whole system with minimum backup of 20 mints". Discuss option of Solar system/inverter with battery back up and feasibility.		

156	<b><u>Hemodynamic System for Both Adult and pediatric must be FDA approved (optional but mandatory to quote)</u></b>		
157	Accessories		
158	"Patient bedside footstep x 2		
159	Patient transfer board		
160	Patient transfer trolley		
161	"Renovation, storage rack paneling, flooring, laminar air conditioning, split AC for		
162	suite, power cables installation, plumbing for the whole IR suite - international OT		
163	standards, O2 and suction outlet points in all rooms of the suite, Hardware for		
164	scrub area, Renovation and furnishing of exam room and consultant office,		
165	changing rooms, waiting area/reception and bathrooms"		
166	Transformer 200KVA or better with cable		
167	03 Years Comprehensive warranty with tube and detector.		
168	Quality standards: FDA, CE, MHLW (At least ONE) for Complete system including Hemodynamic System for adults and pediatrics patients.		
169	<b>NOTE:</b>		
170	Firm should provide at least two weeks training on Machine and Softwares at International reputable venue (01 person).		
171	The firm will also provide in house/onsite training (Interventional Radiology Angiosuite, MTI-HMC) headed by application expert to IR staff of MTI-HMC.		
172	Drawing and design are attached and the firm selected shall be responsible for completion (Key turn project)		
173	For recovery room/patient's day; 10 smart beds (picture attached), 10 basic monitors (BP, pulse, Heart rate) and Oxygen points. One with each bed.		

<p>174</p>	<p>Post warranty percentage shall be mentioned in tender bid and marks should be given as per scoring criteria. (Post warranty will cover entire machine including tube, detector, work stations, generator etc)</p>		
<p>175</p>	<p>Post warranty shall be applicable for atleast 10 years.</p>		
	 <p>The diagram is a floor plan for a medical suite, with a total area of 96 x 56 ft. The layout includes the following rooms and areas:</p> <ul style="list-style-type: none"> <li>Reception (14)</li> <li>IR CLINIC 1 (14)</li> <li>IR CLINIC 2 (14)</li> <li>WAITING AREA (28)</li> <li>DAY CARE 10 BED (19)</li> <li>US PROCEDURE ROOM 1 (18)</li> <li>US PROCEDURE ROOM 2 (18)</li> <li>SCRUB AREA (17)</li> <li>UPS (17)</li> <li>WASHROOM DAY CARE (13)</li> <li>ENTRY LEAD (13)</li> <li>ANGIO SUITE (33)</li> <li>CONSULTANT OFFICE (15)</li> <li>CONS OLE ROOM (20)</li> <li>STAFF WASHROOM + CHANGING AREA (15)</li> <li>EMER (7)</li> </ul> <p>Handwritten dimensions on the left side of the plan are 8, 10, 10, 30, and 15. Dimensions at the bottom are 19, 7, 9, and 21. A signature is visible on the left side of the plan.</p>		
<p>4.2</p>	<p><b>ITEM/EQUIPMENT NAME: DIGITAL COLOR DOPPLER (HIGH END)</b></p>		
<p>1</p>	<p><b>Model:</b></p>		
<p>2</p>	<p><b>Make:</b></p>		
<p>3</p>	<p><b>Country of Origin:</b></p>		
<p>4</p>	<p><b>Post Warranty Series &amp; Maintenance Percentage</b></p>		

5	<b>NOTE:</b>		
6	Onsite technical training to be provided by the supplier.		
7	PNRA Registration will be responsibility of the supplier.		
8	<b>TECHNICAL SPECIFICATIONS</b>		
9	HIGH END FULLY DIGITAL BEAM FORMER COLOR DOPPLER SYSTEM HAVING 2D/M-MODE AND DOPPLER FACILITIES, (PW, CW, HPRF & POWER DOPPLER), CAPABLE TO HANDLE MULTIFREQUENCY PROBES UPTO 22MHZ AND UPGRADABLE TO 4D IMAGING.		
10	SYSTEM COMPLETE WITH FOLLOWING FACILITIES:		
11	HIGH-DEFINITION Minimum 23" LCD/LED MONITOR WITH FULL HD RESOLUTION 1920 × 1080.		
12	04 ACTIVE TRANSDUCER CONNECTOR FOR TRANSTHORACIC PROBES.		
13	1000GB OR MORE HDD/SSD TO BE BUILT-IN TO THE SYSTEM.		
14	FULL DICOM FOR IMAGE STORAGE, PRINT, QUERY / RETRIEVE, MPPS.		
15	TOUCH COMMAND SCREEN CONTROL AT LEAST 12-INCHES COLOR LCD/TFT.		
16	STANDARD PROBES:		
17	02 - 06 MHz MULTI-FREQUENCY SINGLE CRYSTAL CONVEX PROBE WITH STRAIN & SHEARWAVE ELASTOGRAPHY.		
18	07 - 14 MHz MULTI-FREQUENCY LINEAR PROBE WITH STRAIN & SHEARWAVE ELASTOGRAPHY.		
19	04 - 10 MHz MULTI-FREQUENCY ENDOCAVITY PROBE FOR B/M/CDI/PW WITH STRAIN & SHEARWAVE ELASTOGRAPHY.		
20	SYSTEM VIEWING DEPTH: Minimum 50 CM		
21	MINIMUM FRAME RATE: 2,000FPS		

22	MINIMUM BUILT IN CINE MEMORY : 900MB		
23	MINIMUM SYSTEM DYNAMIC RANGE: 400DB		
24	PW DOPPLER.		
25	TISSUE DOPPLER IMAGING.		
26	TISSUE HARMONIC IMAGING.		
27	DIFFERENTIAL THI / HD-THI /CODED HARMONIC IMAGING / CPI FOR SPATIAL RESOLUTION AND BETTER PENETRATION.		
28	AUTO FOCUS THE IMAGE IN NEAR & FAR FIELD FOR QUICK OPERATION.		
29	ULTRAWIDE VIEW OF 110 DEGREE OR MORE WITH CONVEX PROBE FOR EASY ANATOMY SCANNING IN SINGLE VIEW OR as per OEM.		
30	ADVANCED DYNAMIC FLOW / CLARIFY VE / E-FLOW / B-FLOW COLOR / XFLOW / HD FLOW TO SEE LOW FLOW VESSELS.		
31	AUTO IMAGE OPTIMIZATION/QUICK SCAN IMAGING FOR AUTOMATIC IMAGE OPTIMIZATION BY USING ONE TOUCH OPERATION.		
32	eFOCUSING / CSOUND ARCHITECTURE / FULL FOCUS IN ALL PARTS OF IMAGE. or equivalent technology		
33	SONO CT/COMPOUND/APLIPURE TO REDUCES ULTRASOUND WAVE INTERFERENCE WITHIN TISSUES, WHICH APPEAR AS SPECKLE PATTERNS. or equivalent technology		
34	APLIPURE+ / XVIEW+ /ADVANCED SIECLEAR / SPECKLE REDUCTION IMAGING TO REDUCE SPECKLE NOISE AND ACOUSTIC SHADOWS.		
35	ADAPTIVE SUPPRESSION IMAGING / CROSS XBEAM / PRECISION IMAGING TO DISPLAY THE IMAGES MORE CLEARLY AND SMOOTHLY.		
36	AUTO IMT & AUTO NT MUST BE AVAILABLE.		

37	NEEDLE RECOGNITION / BIOPSY ENHANCEMENT AUTO MODE FOR NEEDLE VISUALIZATION.		
38	3D IMAGING FOR THE ACQUISITION OF VOLUME DATA AND DISPLAY OF 3D IMAGES IN B/W AS WELL AS COLOR WITHOUT USING A 4D TRANSDUCER.		
39	MICRO V/ DETECTIVE FLOW IMAGING (DFI)/MICROVASCULAR IMAGING (MVI) /SLOW FLOW STATE / SUPERB MICRO VASCULAR IMAGING (SMI) WITH SPECTRAL DOPPLER TO CLEARLY SHOW BLOOD FLOW IN TINY VESSELS, LIVER CAPSULA, GALL BLADDER WALL ETC.		
40	LIVE STRAIN RATE ELASTOGRAPHY WITH QUANTIFICATION FOR BODY ORGANS SPECIALLY BREAST TO VISUALIZE LESIONS.		
41	LIVE SHEARWAVE ELASTOGRAPHY WITH QUANTIFICATION AND ADJUSTABLE AREA BASED FOR BODY ORGANS SPECIALLY LIVER WITH CONVEX & LINEAR PROBES TO VISUALIZE TISSUE STIFFNESS BY GENERATING IMAGES THROUGH SHEAR WAVE PROPAGATION, SPEED AND ELASTICITY MODES. ATT/UGAP/ATI/UDFF/QAI/ATTENUATION IMAGING FOR FAT LIVER ASSESSMENT / QUANTIFICATION MEASUREMENT IN DB/CM/MHZ.		
42	ATT/UGAP/ATI/UDFF/QAI/ATTENUATION IMAGING FOR FAT LIVER ASSESSEMENT/ QUANTITIFICATION MEASUREMENT IN dB/CM/MHZ.		
43	ACCESSORIES :		
44	A. B/W THERMAL PRINTER.		
45	B. COMPATIBLE UPS.		
46	OPTIONALS (MANDATORY TO QUOTE):		
47	05 - 18 MHZ HIGH-FREQUENCY LINEAR PROBE.		
48	09 - 22 MHZ HIGH-FREQUENCY LINEAR (HOCKEY STICK) PROBE.		
49	MICRO CALCIFICATION FOR VISUALIZATION OF		

	VERY SMALL CALCIFICATIONS AND OTHER EXTREMELY SMALL LESIONS.		
50	REFERENCE IMAGING FOR ULTRASOUND TO ULTRASOUND, ULTRASOUND TO CT AND ULTRASOUND TO MRI FOR IMAGE COMPARISON.		
51	FUSION IMAGING OF CT/ MRI 3D VOLUME DATA TO SYNCHRONIZED AND OVERLY WITH ULTRASOUND IMAGING, COMPLETE WITH HARDWARE.		
4.3	<b>ITEM/EQUIPMENT NAME: DIGITAL COLOR DOPPLER (MID END)</b>		
1	<b>Model:</b>		
2	<b>Make:</b>		
3	<b>Country of Origin:</b>		
4	<b>COUNTRY OF MANUFACTURING</b>		
5	<b>Post Warranty Series &amp; Maintenance Percentage</b>		
6	<b>NOTE:</b>		
7	Onsite technical training to be provided by the supplier.		
8	PNRA Registration will be responsibility of the supplier.		
9	<b>TECHNICAL SPECIFICATIONS</b>		
10	HIGH END FULLY DIGITAL BEAM FORMER COLOR DOPPLER SYSTEM HAVING 2D/M-MODE AND DOPPLER FACILITIES, (PW, CW, HPRF & POWER DOPPLER), CAPABLE TO HANDLE MULTIFREQUENCY PROBES UPTO 22MHZ.		
11	SYSTEM COMPLETE WITH FOLLOWING FACILITIES:		
12	HIGH-DEFINITION Minimum 21" LCD/LED MONITOR WITH FULL HD RESOLUTION 1920 x 1080.		
13	04 ACTIVE TRANSDUCER CONNECTOR FOR TRANSTHORACIC PROBES.		

14	1000GB OR MORE HDD/SSD TO BE BUILT-IN TO THE SYSTEM.		
15	FULL DICOM FOR IMAGE STORAGE, PRINT, QUERY / RETRIEVE, MPPS.		
16	TOUCH COMMAND SCREEN CONTROL AT LEAST 10-INCHES COLOR LCD/TFT.		
17	STANDARD PROBES:		
18	STANDARD PROBES:		
19	02 – 06 MHz MULTI-FREQUENCY SINGLE CRYSTAL CONVEX PROBE WITH STRAIN & SHEARWAVE ELASTOGRAPHY.		
20	05 – 14 MHz MULTI-FREQUENCY LINEAR PROBE WITH STRAIN & SHEARWAVE ELASTOGRAPHY.		
21	04 – 10 MHz MULTI-FREQUENCY ENDOCAVITY PROBE.		
22	MINIMUM SYSTEM VIEWING DEPTH: 45 CM		
23	MINIMUM FRAME RATE: 2,000FPS		
24	MINIMUM BUILT IN CINE MEMORY : 900MB		
25	MINIMUM SYSTEM DYNAMIC RANGE: 300DB		
26	COMPATIBLE PROBES UPTO 22MHZ.		
27	PW DOPPLER.		
28	TISSUE DOPPLER IMAGING.		
29	TISSUE HARMONIC IMAGING.		
30	DIFFERENTIAL THI / HD-THI / CODED HARMONIC / CPI FOR SPATIAL RESOLUTION AND BETTER PENETRATION.		
31	AUTO FOCUS THE IMAGE IN NEAR & FAR FIELD FOR QUICK OPERATION.		
32	ULTRAWIDE VIEW OF 110 DEGREE OR MORE WITH CONVEX PROBE FOR EASY ANATOMY SCANNING IN		

	SINGLE VIEW as per OEM.		
33	ADVANCED DYNAMIC FLOW / CLARIFY VE / E-FLOW / B-FLOW COLOR / HR FLOW / HD FLOW TO SEE LOW FLOW VESSELS as per OEM.		
34	AUTO IMAGE OPTIMIZATION/QUICK SCAN IMAGING FOR AUTOMATIC IMAGE OPTIMIZATION BY USING ONE TOUCH OPERATION		
35	CSOUND ARCHITECTURE / eFOCUSING / FULL FOCUS IN ALL PARTS OF IMAGE WITHOUT THE NEED TO ADJUST FOCUS TO REDUCED OPERATION STEPS/KEYSTROKES ALONG WITH HIGHER IMAGE UNIFORMITY WITHOUT COMPROMISING THE FRAME RATE. or equivalent technology		
36	SRI-HD/COMPOUND/APLIPURE TO REDUCES ULTRASOUND WAVE INTERFERENCE WITHIN TISSUES, WHICH APPEAR AS SPECKLE PATTERNS.or equivalent technology		
37	APLIPURE+ / XVIEW+ /ADVANCED SIECLEAR / SPECKLE REDUCTION IMAGING TO REDUCE SPECKLE NOISE AND ACOUSTIC SHADOWS.		
38	ADAPTIVE SUPPRESSION IMAGING / CROSS XBEAM/XFLOW / CARVING IMAGING/ PRECISION IMAGING TO DISPLAY THE IMAGES MORE CLEARLY AND SMOOTHLY.		
39	AUTO IMT & AUTO NT MUST BE AVAILABLE.		
40	NEEDLE RECOGNITION / BIOPSY ENHANCEMENT AUTO MODE FOR NEEDLE VISUALIZATION.		
41	3D IMAGING FOR THE ACQUISITION OF VOLUME DATA AND DISPLAY OF 3D IMAGES IN B/W AS WELL AS COLOR WITHOUT USING A 4D TRANSDUCER.		
42	MICRO V/DETECTIVE FLOW IMAGING (DFI)/ RADIANT FLOW / SLOW FLOW STATE /SUPERB MICRO VASCULAR IMAGING (SMI) WITH SPECTRAL DOPPLER TO CLEARLY SHOW BLOOD FLOW IN TINY VESSELS, LIVER CAPSULA, GALL BLADDER WALL ETC.		

43	LIVE STRAIN RATE ELASTOGRAPHY WITH QUANTIFICATION FOR BODY ORGANS SPECIALLY BREAST TO VISUALIZE LESIONS.		
44	LIVE SHEARWAVE ELASTOGRAPHY WITH QUANTIFICATION AND ADJUSTABLE AREA BASED FOR BODY ORGANS SPECIALLY LIVER WITH CONVEX & LINEAR PROBES TO VISUALIZE TISSUE STIFFNESS BY GENERATING IMAGES THROUGH SHEAR WAVE PROPAGATION, SPEED AND ELASTICITY MODES.		
45	ATT/UGAP/ATI/UDFF/QAI/ATTENUATION IMAGING FOR FAT LIVER ASSESSMENT / QUANTIFICATION MEASUREMENT IN dB/CM/MHZ.		
46	ACCESSORIES :		
47	A. B/W THERMAL PRINTER.		
48	B. COMPATIBLE UPS.		
49	OPTIONAL (MANDATORY TO QUOTE):		
50	22 MHZ MULTI-FREQUENCY LINEAR (HOCKEY STICK) PROBE.		
51	PANORAMIC VIEW IMAGING.		
52	MICRO CALCIFICATION FOR VISUALIZATION OF VERY SMALL CALCIFICATIONS AND OTHER EXTREMELY SMALL LESIONS.		
<b>4.4</b>	<b>Floor Portable/Mobile Ultrasound Machine</b>		
<b>1</b>	Model:		
<b>2</b>	Make:		
<b>3</b>	Country of Origin:		
<b>4</b>	COUNTRY OF MANUFACTURING & ORIGIN:		

5	Must have a minimum of 19 inch or more, high definition monitor along with 8-10" additional touch screen easy viewing in virtually any environment.		
6	Full sized, floating keyboard allows you to enter data right where you are, reducing the strain of a reach.		
7	Highly intuitive control layout positions your most used keys around the trackball, so you can focus on the patient instead of searching for the key.		
8	The motorized/ hydraulic adjustable height enables you to fit the system to your needs with the simple touch of a button.		
9	<b>Tilting monitor.</b>		
10	MINIMUM Frame rate 1000FPS		
11	MINIMUM Processing channels 150,000		
12	Must support frequency range up to 18MHz		
13	Support raw data storage with possibility to change.		
14	Must have Color power Angio/SMI/B-Flow or equivalent or more		
15	Must have 2D, M-Mode, Anatomic M-Mode, color flow Doppler, Pulsed wave Doppler (PW), High PRF PW, continuous wave Doppler.		
16	B. Transducers and Accessories		
17	MINIMUM 02-06 MHz multi-frequency convex probe for B/M/CDI/PW.		
18	MINIMUM 05-09 MHz multi-frequency linear probe for vascular studies.		
19	MINIMUM 07-14 MHz multi-frequency linear probe for B/M/CDI/PW.		
20	Online UPS (05KVA) with thermal printer and DVD Writer (Black & White)		
21	MINIMUM TVS probe of 06-12MHz		
22	All probes should be active.		

23	Note: Probes and main unit should be OEM		
24	Other items:		
25	Volume navigation: (Along Biopsy guides)		
26	Needle tip tracking or Equivalent		
27	Ability to track needle in and out of plane to support interventional procedures.		
28	The Manufacturer should mention CAT/PART Nos. in the Technical Specification.		
29	Every Manufacturer should submit their Foreign Application /Technical Expert contact details (E-Mail etc.) with the Technical Specification.		
30	All the manufacturers should submit Original Brochures and TDS Endorsed by the Principal.		
<b>4.5</b>	<b>128 Slice CT Scan System</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Latest Generation Whole Body 128-Slices or more CT Scanner with Latest Clinical Application Software		
8	<b>TECHNICAL SPECIFICATIONS</b>		
9	System should be capable of Acquiring /Generating/reconstructing 128 slices per gantry rotation in real time		
10	Gantry bore / aperture to be at least Minimum 70 cm		
11	Minimum gantry rotation time to be at least 0.35 seconds or better, for 128 slices per 360 degree rotation, for all applications		

12	Gantry tilt range must be -24, + 30 degree, system should be capable of acquiring gantry tilting (Physical)		
13	Two-way intercom system for patient operator communication shall be provided.		
14	Maximum scan field of view to be at least 50cm.		
15	Detector width should be 38 mm or more enabling better patient coverage / rotation. Special workflows & ability to program the scanner from the gantry display for special emergency needs.		
16	Minimum slice thickness 0.625 mm		
17	Maximum scan time 100sec for handling heavy patient load.		
18	<b>TUBE</b>		
19	Minimum Heat storage capacity of at least 7MHU		
20	Minimum Anode heat dissipation of at least 1000kHU/min		
21	Dual focal spot as per manufacturer		
22	<b>GENERATOR &amp; DETECTOR</b>		
23	Minimum High frequency type maximum power of at least 70kw.		
24	Minimum 70 to 135 kV range . (+/- 2% deviation in numerical values shall be acceptable)		
25	Being able to do 70 kV as Low kV technique to reduce Radiation Dose.		
26	Minimum Tube current of 600mA with 5mA increments or smaller.		
27	Automatic dose modulation hardware/software.		
28	Low contrast detectability (LCD) calculated on a catphan ct phantom of 4mm or better resolution with a CT number of 3HU (0.3%) contrast difference.		
29	Minimum Spatial resolution of 20lp/cm at mtf 0% at reference		

30	Minimum Slice thickness/pixel size of 0.625mm		
31	Scan length of at least 1.7 meters in a single acquisition or longer.		
32	Minimum Detector Rows: 64		
33	Minimum Detector Elements: 60,000 or as per manufacturer.		
34	Minimum Detector Width: 38mm		
35	Isotropic resolution = or <0.30mm in standard and high-resolution modes as per OEM.		
36	Automated mA modulation according to patient size and tissue density.		
37	Automated kV selection based on initial scanogram /spot scan.		
38	<b>PATIENT COUCH:</b>		
39	Single acquisition scans range of at least 1.7meter or longer.		
40	Minimum Weight bearing capacity of minimum 200kg		
41	Motorized control (form console and gantry) of table movements in horizontal and vertical axis.		
42	Scan with at least 0.25 mm accuracy/ reproducibility on a 200 kg patient.		
43	<b>CONSOLE COMPUTER:</b>		
44	System architecture and operating system must be based on latest technologies. Multi-tasking and parallel processing CPU system, 64bit CPU, 2.2GHz or better. At least 2TB of storage space or more for 500,000 or more image storage or as per manufacturer..		
45	Minimum Ram: 32 GB		
46	Real time spiral/helical reconstruction of Min 80 images per second with iterative dose reduction applied as per OEM.		
47	Minimum Medical Grade Console monitor color 21” LCD/LED screen with 1920x1200 resolution		

48	Iterative dose reduction technology.		
49	DVD / CDR.		
50	CT control box and console table.		
51	Minimum 1024x1024 image reconstruction matrix		
52	<b>MULTI-MODALITY &amp; MULTI VENDOR WORKSTATION (03 NOs. REQUIRED) should be OEM.</b>		
53	Should be supplied directly from the manufacturer of CT scanner and should not be supplied locally from the client.		
54	High-speed link to operator console on DICOM Network.		
55	System architecture and operating system must be based on latest dual Xeon processor or better.		
56	Should have Hi-Resolution Medical Grade LCD/LED screen of Minimum 19 inch with CD / DVD writer.		
57	DICOM viewer for viewing ct.		
58	Laser black & white printer capable of printing on multi size papers, Minimum 1200dpi. Application software for Workstation given below.		
59	<b>SOFTWARE (INCLUDED AS STANDARD):</b>		
60	Full color volume rendering 3D at console and workstation.		
61	CT Angio at console.		
62	Vessel stenosis analysis at workstation.		
63	Basic Comprehensive Brain perfusion analysis(on console & workstation or both)		
64	3D surface rendering at both console and workstation.		
65	Multi-planar reconstruction at console.		
66	Curved planer reformation at console and workstation.		
67	Contrast media based synchronizing software at console.		

<b>68</b>	ECG gated scan system ECG triggered, and ECG gated cardiovascular examinations and artifact- free high resolution imaging as standard (retrospective and prospective).		
<b>69</b>	Automatic control of tube current over high and low attenuation areas of patient dose reduction software for low dose to patient original / certified. .		
<b>70</b>	Iterative dose reduction software should be applicable for whole body organ. Virtual endoscopy / colonoscopy / Bronchoscopy at workstation.		
<b>71</b>	Cerebral blood flow / head perfusion at console and analysis at workstation.		
<b>72</b>	Body blood flow / body perfusion at workstation.		
<b>73</b>	CT DSA subtraction.		
<b>74</b>	Lung volume analysis software on workstation. ensure similar work flow.		
<b>75</b>	Lung Nodule Analysis software on console.		
<b>76</b>	3D direct lung subtraction software for visualizing lung perfusion defects using contrast images at console or as per manufacturer.		
<b>77</b>	Single energy metal artifact reduction function.		
<b>78</b>	Complete coronary calcification scanning package including coronary scanning and calcium scoring software as standard.		
<b>79</b>	Advanced complete cardiac scanning package including complete comprehensive vessel visualization, automated Stenosis calculation, measurement of ejection fraction, stroke volume, cardiac output, LV mass and wall thickness, able to demonstrate ventricular wall motions on color coded map, cardiac reporting program.		
<b>80</b>	Dedicated motion free Coronary CT with intelligent-based automatic phase selection of cardiac cycle or as per manufacturer		
<b>81</b>	70kV scan mode for lower radiation dose and pediatric scanning.		

82	DICOM 3.0: Complete Dicom-3 solution for send, receive, archive, retrieve and print etc.		
83	<b>ACCESSORIES:</b>		
84	200KVA Generator, Standard/mandatory. With ATS panel.		
85	160KVA online sine wave ups for whole system with a minimum backup of 20 minutes on full load or equivalent		
86	Dual head programmable, power injector with flow/volume control for both head independently, mounted on mobile base or ceiling suspended or equivalent. Standard set of phantoms for calibration of ct.		
87	Table accessories: table pad, arm rest, patient restraint kit, IV pole, infant cradle, flat head holder, head side pad, u-shaped head pad, head support for coronal scanning, knee cushion. Accessory rack or cabinet.		
88	Integrated patient vital sign monitor for ECG gated scanning. Should have provision of displaying ECG signal on display of gantry and on console computer or as per OEM.		
89	Deep learning as per OEM.		
90	<b>INSTALLATION:</b>		
91	Complete Installation of CT. (Installation, testing, commission included)		
92	Lead lining of the CT room (where required) will be done by the vendor who will be responsible for complete interference free installation from its surroundings to ensure artifact free examination.		
93	Lead glass for control room 2x3 feet 0.5 mm PB. Equivalent		
94	Site preparation will be done by the selected bidder.		
95	PNRA Registration will be responsibility of the supplier.		
96	Onsite training application till complete operationalization of the equipment		

<b>4.6</b>	<b>Digital Mobile X-Ray Machine with Battery Backup</b>		
<b>1</b>	Model:		
<b>2</b>	Make:		
<b>3</b>	Country of Origin:		
<b>4</b>	Country of Manufacturer:		
<b>5</b>	Post Warranty Series & Maintenance Percentage		
<b>6</b>	<b>Technical Specifications</b>		
<b>7</b>	Mobile X-Ray can be used to detect bone and joint problems, like complex bone fractures etc. and easy to move from one place to another place.		
<b>8</b>	<b>1. Generator</b>		
<b>9</b>	The highest high-frequency high-voltage generator minimum 60KHz		
<b>10</b>	High control precision, KV, mA real-time control.		
<b>11</b>	Protection circuit to control the generator temperature, overheating, overcurrent, overvoltage, tube overload protection		
<b>12</b>	Generator with wide working voltage range		
<b>13</b>	Power: Minimum 30KW		
<b>14</b>	Tube Current: minimum 10mA~400mA		
<b>15</b>	minimum mAs: 0.1~300mAs		
<b>16</b>	minimum Exposure time: 1ms~8 sec		
<b>17</b>	minimum Exposure voltage kV: 40-150kV		
<b>18</b>	APR: 1000 or as per manufacturer Power Input: 100V-240 AC Single phase, 50/60Hz		
<b>19</b>	<b>2. X-Ray Tube</b>		
<b>20</b>	Rotating anode X-ray tube		
<b>21</b>	minimum Anode heat storage capacity 140kHU		

22	minimum Focal spot: dual focus 0.6 mm/1.2 mm		
23	minimum Tube Voltage: 40~ 150kV		
24	minimum Inherent filtration: 0.9mmAl		
25	<b>3. Flat Panel Detector</b>		
26	Portable wireless flat panel detector that make examination easier even on a stretcher bed or wheelchair.		
27	Amorphous silicon (a-Si) semiconductor with cesium Iodide (CsI) scintillator		
28	minimum DQE: 70%		
29	minimum Pixel area (Detector size): 14x17inch		
30	minimum Pixel size: 140 $\mu$ m		
31	minimum Matrix size: 2560x3072 or as per OEM.		
32	minimum Dynamic range: 16bit		
33	minimum Spatial Resolution: 3.6lp/mm		
34	minimum Imaging time of imaging system: 6 sec		
35	minimum Preview time of imaging system: 5 sec		
36	Data transmission method: Ethernet		
37	Auto charging inside the detector storage facility should be available		
38	Electronic detector lock		
39	<b>4. Movements</b>		
40	minimum Tube assembly vertical plane rotation angle: -90°~90°		
41	minimum Tube assembly horizontal axis rotation angle: -90°~90°		
42	<b>5. Battery Backup</b>		
43	Battery backup of 100 exposures		

44	minimum Charging time: 3.5h		
45	The sensor in the front to automatically stops the device if a slight pressure is detected		
46	Dual way braking		
47	Unit movement driven by power or manual		
48	<b>Acquisition Workstation</b>		
49	Workstation as per manufacturer		
50	CD/DVD R/W		
51	Image acquisition workstation monitor: LCD Screen size: minimum 17 inch		
52	Image processing system meets the DICOM 3.0 achieving management over patients and images.		
53	FPD, Generator, Workstation, collimator should be from the same OEM		
4.7	<b>Digital Radiography System</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Fully dedicated and integrated digital radiographic system /Compatible X-ray machine with Detector from same Manufacturer 1000mA. Tube workstation,detector, generator from same OEM.		
9	• Input power: 3φ, 380 - 440v, 50 Hz,		

10	<b>X-ray Generator</b>		
11	• Maximum output :80KW, 1000mA ,150KV		
12	• Input power: 3φ, 380 - 440v, 50 Hz,		
13	• minimum Output voltage: 40KV to 150KV		
14	• Radiographic mA range minimum 10-1000 mA at 10% steps		
15	• mAs minimum 0.4mAs to 650mAs on either side		
16	• AEC should be Available		
17	<b>X-Ray Tube</b>		
18	• Rotating anode double focus		
19	• Small Focus: 0.6 x 0.6 mm or Less.		
20	• Large Focus: 1.2 x 1.2 mm or Less.		
21	• Maximum voltage: 150KV		
22	• Anode heat storage capacity minimum 300KHU		
23	• Should have tube overload, and overheat protection		
24	<b>Flat Panel Detectors QTY 2</b>		
25	• Integrated Flat Panel Detector		
26	• Active image size upto 42cm x 42cm		
27	• Should have CSI or Gadox as Scintillating medium		
28	• Pixel depth should be 16 bit or more		
29	• Pixel size 150um or less (Smallest the better)		
30	• Image's pre-viewing should be available in about less than 3secs after exposure		
31	and the cycle time should be less than 10 seconds		
32	<b>Control console</b>		
33	• Selection of FPD (wall Bucky and table Bucky) or selection of dose (KV, mA,		

34	and mAs) or selection of Anatomical Program should be done on single console.		
35	• Anatomical Programming: minimum 100		
36	• Manual operation should be possible		
37	• Hand Switch for Radiography.		
38	<b>Floor mounted Tube with collimator</b>		
39	• floor mounted tube assembly` o X-Ray tube rotation on horizontal Axis with		
40	Electromagnetic brakes to hold on desire position		
41	• Electromagnetic brakes for movement control.		
42	• Motorized/Manual control Collimator (beam limiting device)		
43	<b>Bucky Table</b>		
44	Four-way floating table top with access to patient from all sides.		
45	• Electromagnetic Brakes.		
46	• Max Patient load should be 150 KG. incorporated for table oscillating grid only		
47	<b>Wall Bucky Stand</b>		
48	• Chest stand should have Oscillating Grid Bucky		
49	• Vertical Travel, up and down with balancing system & Electromagnetic Brakes		
50	• minimum Grid Ratio 10:1		
51	<b>Dry film printer</b>		
52	• At least 03 online film trays, for printing		
53	<b>Acquisition WorkStation</b>		
54	minimum 19 inch medical grade TFT monitor		
55	• System should have ready DICOM interface and networking		

	capability with PACS		
56	• Post processing function must be available. Measurement Tools, Window Level,		
58	Rotate, Magnify, Zoom, Images elaboration, Image Invert, Contrast, Brightness,		
59	with examination specific algorithms.		
60	• Save image should have information e.g Name, age, gender date, time and		
61	• Transfer of image USB should be possible		
62	minimum Thickness 1.5mm		
63	Lead sheets to be fixed on strong material / seasoned wood.		
64	• The supplier company will be responsible for providing the air conditioning and necessary furniture for the suite.		
65	• Lead sheet related / associated work i.e., Electricity and Civil works etc. if needed to be carried out by the supplier		
66	• All walls and doors must be covered with lead sheet		
67	• Lead glass Window for operator thickness 9mm size 2ft*2ft or better		
68	• Fixing all the things according to PNRA rules and guidelines should be considered.		
69	• Lead Apron qty 2 should be provide		
<b>5</b>	<b>PEADS</b>		
<b>5.1</b>	<b>VEIN FINDER</b>		
<b>1</b>	Model:		
<b>2</b>	Make:		
<b>3</b>	Country of Origin:		

<b>4</b>	Country of Manufacturer:		
<b>5</b>	Post Warranty Series & Maintenance Percentage		
<b>6</b>	Technical Specification		
<b>7</b>	Vein finder specifications focus on portability, infrared tech, image quality, and battery, with key specs including wavelength (around 850nm), vein visibility ( $\geq 1\text{mm}$ ), accuracy ( $\pm 0.25\text{mm}$ ), light source (LEDs), adjustability (brightness/color), weight ( $< 500\text{g}$ ), and battery life (1-5 hrs), all designed to help clinicians locate veins for procedures, especially in difficult-to-access patients like the elderly or dark-skinned individuals.		
<b>8</b>	Core Technology & Performance		
<b>9</b>	Light Source: Infrared (IR) LEDs (e.g., $\sim 850\text{nm}$ wavelength) that absorb into deoxygenated blood, making veins visible as dark lines.		
<b>10</b>	Visualization: Projects a real-time, false-color image of veins onto the skin.		
<b>11</b>	Vein Visibility: Detects veins down to 1mm or finer, crucial for difficult access.		
<b>12</b>	Accuracy: High precision (e.g., $< 0.05\text{mm}$ ) for precise placement.		
<b>13</b>	Image Adjustments: Adjustable brightness (5 levels) and color modes (7-12 colors) for different skin tones/environments.		
<b>14</b>	Device Design & Usability		
<b>15</b>	Portability: Handheld, lightweight		
<b>16</b>	Ergonomics: Sleek, fanless design for easy cleaning (wipeable with alcohol/wipes).		
<b>17</b>	Ease of Use: One-button operation, instant-on, aligned focus		
<b>18</b>	Mounting: Can be used handheld or converted to hands-free (arm/stand mounts available).		
<b>19</b>	Power & Features		

20	Battery: Rechargeable Lithium-Ion 1.5 to 5 hours of use.		
21	Charging: Standard adapters (100-240V AC input).		
22	Applications: Adults, children, infants, obese, dark-skinned, chemotherapy patients.		
24	Key Benefits		
25	Reduces venipuncture failure & pain.		
26	Increases staff productivity & patient satisfaction.		
27	Helps find vessels in challenging patients (elderly, dark skin, obese)		
5.2	<b>ECHOCARDIOGRAPHY MACHINE</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	High-End 4D Echocardiography Machine for the Pediatric Cardiology Department of MTI-HMC., the increasing number of pediatric patients with congenital and acquired heart diseases necessitates the availability of a state-of-the-art echocardiographic imaging system to ensure accurate diagnosis, interventional support, and effective treatment planning.		
8	Key Features:		
9	Digital, multi-dimensional 4D echocardiography system with latest technology.		
10	Frame rate with Minimum 2800 fps in 2D Mode.		
11	Fully automated 4D volume (live 3D) calculation for LV, RX, LA, TV, MV & AV.		

12	System should have the facility of displaying the three planes of the 3D data set.		
13	1000 channel in Doppler mode or 150 channels in color mode or more.		
14	Multi frequency phase array matrix TTE 4D probe for Pediatric Patients		
15	Multi frequency phase array matrix TTE 4D probe for adults		
16	Multi Frequency phase array Matrix TEE 4D probe.		
17	This advanced imaging system will significantly contribute to improving the quality of pediatric cardiac care. It will also aid in interventional cardiology, surgical planning, teaching, and research.		
<b>5.3.</b>	<b>Blood Gas Analyzer (Capillary Option Available)</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Parameters: pH, pCO <sub>2</sub> , pO <sub>2</sub> , HCO <sub>3</sub> <sup>-</sup> , base excess, electrolytes, Lactate and oximetry		
8	Capillary, arterial, and venous sample compatibility		
9	Sample volume: ≤100 μL		
10	Fast result time: ≤2 minutes		
11	Automatic calibration system		
12	Built-in quality control		
13	Cartridge-based or reagent system		

14	Includes heparinized capillary tubes		
15	Touchscreen interface and data storage		
<b>5.4</b>	<b>Point-of-Care Ultrasound (POCUS) Machine</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Portable, compact ultrasound system		
8	Multi-probe compatibility (linear, convex, phased array)		
9	Imaging modes: B-mode, M-mode, Color Doppler		
10	High-resolution LCD display		
11	Battery operation ( $\geq 2-3$ hours)		
12	Presets for emergency, abdominal, cardiac, vascular use		
13	Image storage and USB export		
14	Lightweight and easy to transport		
15	DICOM compatibility		
<b>5.5</b>	<b>Defibrillator Machine</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		

5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	· Applicable people Adult, pediatric, neonate		
8	· Biphasic truncated exponential (BTE) waveform, auto-compensation according to patient impedance		
9	· Max energy output 360J		
10	· Defibrillation mode under manual mode Synchronization and Non-Synchronization not less than 23 levels for energy selection		
11	· Charging time With battery: less than 03 seconds to 200J		
12	· Screen 8 inch LCD or better color capacitive touch display, protected by tempered glass 1024X768 pixels		
13	· Not less than 5 waveforms, Trace freeze function, Screenshot function, Auto-brightness		
14	· Support gesture control		
15	· Sweep speed 6.25, 12.5, 25, 50mm/s		
16	· Boot time No more than 2 seconds		
17	· There should be indicators both on screen and external paddle showing the contact impedance status between the patient and paddle/pads. The impedance value on display is configurable.		
18	· Energy selection can be done through both the device panel and external paddles		
19	· Patient impedance range 25 to 300Ω for external defibrillation		
20	· ECG recovery time after defibrillation No more than 2.5 seconds		
21	· Automatic rhythm analysis in manual		
22	· Operation guide in manual defib mode		

23	· AED Voice guide, Voice recording		
24	· Shock series Shocks: 1, 2, 3, configurable. Default escalating energy sequence meeting AHA 2020 guideline		
25	· CPR feedback		
26	· Parameters monitored Standard: rate, interruption time		
27	· Pacing Modes Fixed mode and demand mode		
28	· Waveform Mono-phasic square wave pulse		
29	· Pulse width 20ms, 40ms, $\pm 5\%$		
30	· Pacing rate 30ppm to 210ppm		
31	· ECG 15 to 300bpm for adult: 15 to 350bpm for pediatric and neonate. HR accuracy: $\pm 1\%$ or $\pm 1$ bpm, whichever is greater. ECG size: 0.25, 0.5, 1, 2, 4cm/mV, Auto. ECG cascade		
32	· ST/QT monitoring		
33	· Graphical visual alarm guide		
34	· AC input 100V-240V		
35	· Battery Lithium-ion battery, support not less than 300 shocks @ 200J, or 6.5 hours monitoring, or 4.5 hours pacing at one charge with a new battery.		
36	· Auto record Charge events, shock events, marked events, auto test report, parameter alarms, ARR alarms, if configured on		
37	· Recording speed 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s		
38	· Record waveform length 8s, 16s, 32s, STAT		
39	· Printing waveforms Max. 3		
40	· Event recording Up to 1000 events for each patient.		
41	· Waveform storage Up to 120 hours of consecutive ECG waveforms		
42	· Voice recording At least 08 hours for each patient		

43	· Tabular Trends At least 200 hours of all measured parameters; resolution: 1 min		
44	· Data can be export to a PC through a USB flash memory		
45	· Auto test while power off Standard, including max. energy discharge		
46	· Graphic visual troubleshooting guide		
47	· Environmental and physical requirements		
48	· Water/solids resistance $\geq$ IP55		
49	Data transfer (optional): Send real-time data to CMS or HL7 service via Wifi or wired network		
<b>5.6</b>	<b>HFOV</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	• Pre-Mature Infant & Paeds Ventilator System with High Frequency Ventilation		
8	• Microprocessor controlled ventilation system with HFO ventilation		
9	• LCD/TFT color Monitors 10" inches or more		
10	• Patient Range: Pre-Mature, Infant and Paeds up to 25KG		
11	• Modes of Ventilation:		
12	o CMV		
13	o Pressure Control/PS		

14	o CPAP		
15	o SIMV		
16	o Volume Targeting		
17	o NIV		
18	<b>HIGH FREQUENCY OSCILLATION</b>		
19	o HFO + CPAP		
20	o HFO + CMV		
21	<b>CONTROL</b>		
22	• Set & measured parameters simultaneously		
23	• Measurement Range/Specification		
24	• High frequency oscillation: 5-10Hz		
25	• Inspiratory Tidal Volume: Minimum 02-150 ml		
26	• Respiratory Frequency:5-180 bpm		
27	• Inspiratory Pressure:5-60cm H2O		
28	• Peep: 0 to 20cm H2O		
29	• I:E Ratio:1:4, 4.1		
30	• FiO <sub>2</sub> /O <sub>2</sub> Delivery:21-100%		
31	• Pre-oxygenation with 30 to 300 seconds, time user adjustable		
32	• Monitoring Parameters for set and measured value simultaneously with Digital Display		
33	• Total breath rate		
34	• Oxygen concentration FiO <sub>2</sub>		
35	• Expired Minute Volume		
36	• Expired Tidal Volume		
37	• Peak expiratory flow		

38	• Peak Pressure		
39	• Mean Pressure		
40	• Lung Mechanics with pressure and volume loops		
41	<b>OTHERS CONTROL AND FUNCTIONS</b>		
42	• Back up Ventilation.		
43	• Microprocessor Gas Delivery System		
44	• Breath Circuit Compliance Compensation		
45	• Expiratory hold/Inspiratory Hold		
46	• Pressure & Volume/Flow Trigger Sensitivity.		
47	• Trigger Sensitivity Indication		
48	• Should able to operate on single air/and gas source at 21% Oxygen.		
49	• Trend Data		
50	<b>ALARMS</b>		
51	• Apnea		
52	• AC Power Failure		
53	• High and Low Expired Minute Volume		
54	• High and Low Peak Air Way Pressure		
55	• High and Low breath rate		
56	• FiO <sub>2</sub> Variation		
57	• Low and High base line pressure		
58	• Gas Supply Source Failure		
59	• Low battery		
60	<b>NEBULIZER</b>		
61	• Built-in Nebulizer with 30 to 300 seconds, time user adjustable		

62	<b>HUMIDIFIER:</b>		
63	▪ Automatic compensation (Servo) controlled heated humidifier with temperature monitoring at air way		
64	▪ Humidification chamber with alarm for low/ high limits with water trap in the patient circuit.		
65	<b>POWER SUPPLY</b>		
66	• 220V 50Hz with internal chargeable battery backup time for minimum 1 hour including Humidification system		
67	<b>PNEUMATICS</b>		
68	• The unit will be driven on the central compressed air and oxygen		
69	<b>ACCESSORIES:</b>		
70	· Mobile trolley with two lockable casters from the same Manufacturer		
71	· Autoclaveable Reusable Patient Tubing Circuit for Infant & Paeds		
72	· Autoclaveable Reusable flow sensor		
73	· Neonatal Test Lungs		
74	· Air, Oxygen Hoses & Power Cords		
75	· User/Service Manual		
5.7	<b>Portable Monitor</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		

7	Display Size: 7 inches diagonal		
8	Resolution: 1024 x 600 (WSVGA) LCD		
9	Brightness: 250 cd/m <sup>2</sup>		
10	Contrast Ratio: 700:1		
11	Viewing Angle: 75/75/70/75 (L/R/U/D)		
12	Connectivity: USB (DisplayLink technology for video, power, and touch over a single cable)		
13	Touchscreen: Available in Capacitive (multi-touch) or Resistive (single-touch) models		
14	Power Consumption: ~4W - 6W		
15	Dimensions: ~185.74mm x 127mm x 21mm		
16	Weight: Less than 1 pound		
17	Compatibility: Windows, Linux, Mac OS (some models/features may require drivers)		
<b>5.8</b>	<b>Portable Ventilator</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Mountable transport ventilator (Neonate/Paediatric).		
8	2. Invasive Modes (CMV and SIMV) and Non-invasive Mode (CPAP).		
9	3. Pressure controlled - Pressure upto 15mmHg.		
10	4. Respiration Rate upto 40.		

11	5. There should be two FiO <sub>2</sub> setting range between 21% and 100%. Setting		
12	100% FiO <sub>2</sub> should be mandatory.		
13	6. PEEP 0-20 cm of water.		
14	7. Trigger sensitivity - Pressure.		
15	8. The associated cylinder(to be supplied along with the machines) should		
16	be such that it could be locally filled.		
17	9. Oxygen Cylinder connector(to be supplied along with the machines)		
18	should be compatible with ventilator.		
19	10. Audio and visual alarm for disconnection and high pressure.		
20	11. The device should be capable of operation in various environments such as		
21	Emergency, Ambulance, Aircraft,Hospital and MRI.		
22	12. The device should be MRI conditioned up to 3 Tesla, 430 G/cm.		
6	<b>ICU MECHANICAL VENTILATOR</b>		
1	<b>Model:</b>		
2	<b>Make:</b>		
3	<b>Country of Origin:</b>		
4	<b>Country of Manufacturer:</b>		
5	<b>Post Warranty Series &amp; Maintenance Percentage</b>		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Suitable for adult, pediatric and neonatal patients (minimum 2kg) or better		

8	Full color minimum 15 TFT touch screen with high resolution		
9	Pneumatically driven & electronically controlled ventilator		
10	Full-automatic system check procedure.		
11	Full automatic self-test and pre-operational system check.		
12	Invasive and non-invasive ventilation could be used inside ICU or outside ICU.		
13	Backup air supply, which could guarantee the ventilator work properly in emergency condition such as no air supply or no electricity supply.		
14	Integrated battery backup: minimum 120 minutes.		
15	Automatic switch-over during power failure is mandatory		
16	With real-time gas pressure electronic display.		
17	Leak test, sensor calibration, and alarm test should be part of pre-use checking		
18	Dedicated inspiratory & expiratory flow sensor to ensure the ventilation accuracy. Inspiratory & Expiratory module can be detachable and autoclavable (134°C). Flow sensors must be reusable.		
19	Modular designed main-stream / side-stream CO2 concentration monitoring measurement.		
20	· Ventilation Mode may vary from manufacturer to manufacturer.		
21	<b>2 Ventilation Modes for invasive &amp; non-invasive</b>		
22	Having the following ventilation modes or similar ones		
23	V-A/C (Volume Assist/Control )		
24	P-A/C (Pressure Assist/Control)		
25	V-SIMV (Volume-Synchronized Intermittent Mandatory Ventilation)		
26	P-SIMV (Pressure-Synchronized Intermittent Mandatory		

	Ventilation)		
27	PSV (Pressure Support Ventilation)		
28	CPAP (Continuous positive airway pressure ventilation)		
29	nCPAP (nasal Continuous positive airway pressure ventilation) quoted as Optional.		
30	Duolevel (Dual Level Positive airway pressure ventilation)		
31	APRV (Airway Pressure Release Ventilation)		
32	PRVC (Pressure Regulated Volume Control)		
33	PRVC-SIMV (PRVC-Synchronized Intermittent Mandatory Ventilation)		
34	VS(Volume support)		
35	Apnea Back-up		
36	AMV (Adaptive minute ventilation)		
37	CPRV (Cardio-pulmonary resuscitation ventilation)		
38	<b>3 Procedures and Decision Support Function</b>		
39	Sigh function		
40	High flow O2 Therapy		
41	Pneumatic Nebulizer		
42	Expiratory Hold		
43	Inspiratory Hold		
44	Manual breath		
45	O2 Enrichment		
46	Suction support		
47	P0.1 measurement		
48	NIF measurement		
49	PEEPi measurement		

50	Low flow PV tool to decide optimal PEEP setting. Calculate and display upper and lower inflection points. Store up to 4 historical measurements.		
51	ATRC: automatic tube resistance compensation		
52	Weaning Tool		
53	Recruitment Maneuver: Sustain inflation method.		
54	minimum Basic flow: automatic adjustment, range: 3-40L/min (invasive) ; 10-65L/min (non-invasive)		
55	<b>4 Control Parameters Specification</b>		
56	minimum Tidal Volume: 2-2500ml (neonatal 2-100ml) or better		
57	minimum Respiratory rate: 1-100 breath/min (neonatal 1-150) or better		
58	minimum SIMV rate: 1-60 breath/min		
59	minimum I:E ratio: 1:10- 4:1		
60	minimum Inspiratory Time: 0.1-10s		
61	minimum Peak Flow:150L/min		
62	Plateau pressure		
63	T Slope or Plataue Time		
64	minimum Inspiratory Pressure: 1-100cmH2O		
65	minimum Support Pressure: 0-100cmH2O		
66	minimum PEEP: 0-50cmH2O		
67	minimum Pressure Trigger: -10- -0.5cmH2O, OFF		
68	minimum Flow Trigger: 0.5-20 L/min (neonatal 0.1-5.0L/min), OFF		
69	minimum Exp% : Auto, 10-85%		
70	minimum FiO2: 21-100%		
71	<b>5 Monitored Parameters Specification</b>		

72	Airway Pressure: PEEP, Ppeak, Pplat, Pmean		
73	Minute Volume: MV, MVspn, MVleak		
74	Tidal Volume: TVi, TVe, TVe spn, TVe/IBW		
75	Respiratory Rate: ftot, fmand, fspn		
76	O2 concentration: FiO2		
77	CO2 parameter: EtCO2, V'CO2, Vdaw, slopeCO2, Vdaw, Vdaw/TVe, Vtalv, V'alv, ViCO2, VeCO2		
78	Lung Mechanics: Rinsp, Rexp, Cstat, Cdyn, RCexp		
79	Others: RSBI, NIF, WOB, Tinsp, I:E		
80	Display graphics including standard waveforms showing pressure, flow, volume, CO2, Pleth, auxiliary pressure over time, show up to 3 waveforms simultaneously		
81	Display Loops including Pressure-Volume, Flow-Volume, Flow-Pressure, show up to 2 loops simultaneously		
82	Waveforms and loops display simultaneously		
83	Configurable graphical and numerical display		
84	Show trended data for the last 96 hours or better		
85	Store 5000 history log information or better		
86	<b>6. Adjustable Audio and Visual Alarms</b>		
87	Airway Pressure: High/Low		
88	Minute Volume: High/Low		
89	Respiratory Rate: High/Low		
90	Expiratory tidal volume: High/Low		
91	Inspiratory tidal volume		
92	PEEP: High/Low		
93	Inspired O2 concentration: High/Low		
94	EtCO2: High/Low		

95	Apnea		
96	Breathing circuit disconnect / Leakage		
97	Breathing circuit occlusion		
98	Power Supply Fail		
99	Gas Supply Fail		
100	<b>7. Power and Gas Supply</b>		
101	External AC power supply: 100~240V, 50/60Hz		
102	Integrated Li-Ion backup battery run time: Up to 180min		
103	<b>8. Communication</b>		
104	Ventilator Data, trends and screenshots can be exported to USB		
105	Communication ports: RS232, VGA, USB, Ethernet, Nurse Call etc.		
7	<b><u>COMPUTERIZED HAEMODIALYSIS Machine with RO System</u></b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	Technical Specification		
7	· Computerized programmable with graphical/Touch Screen.		
8	· Electronic control of flow rate and blood flows		
9	· Variable Bicarbonate / Acetate Concentration.		
10	· Automatic control for various Set Bicarbonate proportions.		

11	· Variable sodium concentration		
12	· Sodium , UF Profiles		
13	· Variable temperature control		
14	· Programmable Ultra filtration with control or varying rate		
15	· Ultra filtration with diffusion		
16	· Programmable Heparin Management, with bolus option		
17	· Automatic priming with display		
18	· Display for service diagnostic and calibration		
19	· Automatic clean and rinsing mechanism		
20	· Automatic Thermal disinfect mechanism (upto 80C or above)		
21	· Blood Pump: Minimum 15 to 400ml/minute		
22	· Heparin pump: 0-10cc/hour		
23	· Selectable Dialysate Flow : Minimum 600ml/min or above		
24	· Temperature Control: up to 39 deg. C.(Adjustable)		
25	· Arterial Pressure Monitor:- Minimum 300mmHg to +52mmHg		
26	· Venous Pressure Monitor :-Minimum 52 mmHg to +400mmHg		
27	· Ultra filtration Rate Control: Minimum Range of UI R0.0 to 2.4 kg – hour		
28	· Balanced ultra filtration control to eliminate patient systems that result from poor fluid management		
29	· Air Bubble Detection: Air bubble detector alarm threshold.		
30	· Blood Leak Detection:		
31	· (Conductivity Control: Acetate and Bicarbonate Solutions Liquid and powder (internal automatic mixing).		
32	· Automatic Blood Pump capability for peds & for adult		

	dialysis treatment		
33	· Real Time graphical display for dialysis dose delivery Kt/v		
34	· Endotoxin Filter		
35	· Dialysate flow stop feature		
36	· 220 V, 50 Hz power with Automatic Battery backup for at least 15-min.		
37	· Integrated B.P monitor		
38	RO System shall be capable to run 2-3 system.		
<b>8</b>	<b>NEUROLOGY EQUIPMENT</b>		
<b>8.1</b>	<b>NCS/EMG Machine for the Neurology Department.</b>		
<b>1</b>	<b>Model:</b>		
<b>2</b>	<b>Make:</b>		
<b>3</b>	<b>Country of Origin:</b>		
<b>4</b>	<b>Country of Manufacturer:</b>		
<b>5</b>	<b>Post Warranty Series &amp; Maintenance Percentage services with parts</b>		
<b>6</b>	PNRA Registration will be responsibility of the supplier.		
<b>7</b>	<b>TECHNICAL SPECIFICATIONS</b>		
<b>8</b>	Channels: Available in 6 or 12-channel amplifier configurations.		
<b>9</b>	Applications: Motor and sensory NCS, F-wave, H-reflex, blink reflex, EMG (routine, macro, single-fiber), and evoked potentials (SSEP, ABR, VEP, MLR, ERG).		
<b>10</b>	Amplifier: Low-noise differential amplifier with input impedance of approx. 200 MΩ and noise level < 0.6 μV (1 Hz–10 kHz).		
<b>11</b>	Common Mode Rejection Ratio: ≥ 112 dB ensuring superior signal quality.		

12	Analog-to-Digital Conversion: 18-bit A/D converter for high-resolution recording.		
13	Stimulator: Supports up to two electrical stimulators with modes including single, double, train, and multi-train stimulation (0.1–1.0 Hz).		
14	Filters: Adjustable low-cut (0.01 Hz–3 kHz) and high-cut (10 Hz–20 kHz) filters.		
15	Software: Integrated NeuroWorkbench and NeuroReport for data management, analysis, and reporting.		
16	Guidance System: On-screen NeuroNavi feature provides visual electrode and stimulation placement guidance.		
17	User Interface: Compact control panel with programmable function keys for stimulation, recording, and analysis.		
18	Safety and Standards: Compliant with IEC 60601-1, IEC 60601-1-2, and IEC 60601-2-40 medical safety standards.		
19	Optional Features: Visual, auditory, and somatosensory stimulators; active electrodes; autonomic testing (SSR, R-R interval).		
20	Mounting: Compact desktop design, can be cart-mounted for mobility.		
8.2	<b>ITEM/EQUIPMENT NAME: EEG Machine for the Neurology Department.</b>		
1	<b>Model</b>		
2	<b>Make:</b>		
3	<b>Country of Origin:</b>		
4	<b>Country of Manufacturer:</b>		
5	<b>Post Warranty Series &amp; Maintenance Percentage services with parts</b>		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	EEG MACHINE SPECS:		

8	System Type: Advanced EEG / PSG system for routine EEG, long-term monitoring, and research.		
9	Channels: Scalable from 32 up to 256 channels.		
10	Amplifier: Wide bandwidth, high-sensitivity for slow shifts to high-frequency ripples.		
11	Display: High-resolution (1600 × 1200), up to 250 channels displayed simultaneously.		
12	Data Storage: Integrated PC unit (≥ 500 GB HDD, expandable).		
13	Video EEG: Optional synchronized MPEG-4 video capture (USB / composite / S-video).		
14	Photoc Stimulation: Optional LS-1204 unit (0.5–30 Hz, 50/60 Hz).		
15	Sweep Speeds: 0.1 to 60 sec/page (and 5 min/page).		
9	<b>NEUROSURGERY EQUIPMENT</b>		
9.1	<b>Carbon Frame Extension Attachments</b>		
1	<b>Model</b>		
2	<b>Make:</b>		
3	<b>Country of Origin:</b>		
4	<b>Country of Manufacturer:</b>		
5	<b>Post Warranty Series &amp; Maintenance Percentage services with parts</b>		
6	Features:		
7	Extension system that can be connected to a variety of operating tables and provides excellent C-Arm access.		
8	3-point rigid cranial fixation setting, along with the connected operating table and provides smooth and flexible movements.		

9	Designed for 3D/CT, space for X-ray transmission is widened.		
10	General 3-point rigid cranial fixation, 1 can be attached.		
11	3-point rigid cranial fixation can be attached from the cephalad side, it can be used for A/P photography of cervical and thoracic vertebrae even it is a metal type.		
12	An electric lifting type and the height can be easily adjusted by a remote control.		
13	Enables a variety of positioning including Flexion, Lateral tilt, Fowler position, Extension, Supine position and Lateral positions.		
14	Two different sizes of mats should be included.		
15	High performance Ex-Gel used in the pads to enable long duration surgery.		
16	Technical Specifications		
17	Compact storage.		
18	Outside dimensions (when used) :1905mm (L) × 530mm-765 mm (W*2) × 710mm-1110 mm (H)		
19	Outside dimensions (when stored): 90mm (L) ×530mm (W) ×1615mm (H)		
20	Carbon frame outer width: 430 mm		
21	Specify rail outer width: 470 mm - 670 mm		
22	Range of lifting (the carbon frame top - the floor): 610mm - 1000 mm (stroke: 390 mm)		
23	Lateral tilt (left/right): 20°/20° (*3)		
24	Trendelenburg/ reverse Trendelenburg: 35°/ 35° (*3)		
25	Patient weight capacity: Minimum 220 kg (*3)		
26	Standard Set.		
27	Four-point support table (CC Type 2 sizes of pads)		
28	Tabletop (4 pcs of one set)		

29	Armrest (Left-and-right pair)		
30	OR Table Clamp (Left-and-right pair, 2 pcs of belts)		
31	Headrest		
32	Mat Cover Premium for four-point frame, 6 sets / box (with 24 sheets).		
33	Mat Cover Premium C for four-point frame, 6 sets / box (with 24 sheets).		
34	Mat Cover for face / headframe, 12 sets / box (with 36 sheets).		
35	Sustain for face / headframe, 5 sets / bag (with 15 sheets).		
36	Attachment for 3-point rigid cranial fixation (Left-and-right pair)		
37	Plate Spacer C (Flat 40mm Right Breast Left Lumbar)		
38	Plate Spacer C (Flat 40mm Left Breast Right Lumbar)		
39	Armrest (Left-and-right pair)		
40	Floating Device (Headrest Attachment for 3-point cranial fixation)		
41	<b>Shaver System</b>		
42	High quality endoscopic shaver system controlled via handpiece or via footswitch.		
43	Available direction modes: Forward, oscillation, reverse.		
44	Automatic handpiece detection		
45	Fully autoclavable, light and ergonomic handpiece		
46	Class of protection: Class I		
47	Minimum Speed range: FWD, REV: 500 -8000 RPM		
48	Minimum OSC: 500 - 3000 RPM		
49	Sterilization method: Steam sterilization 134°C		
50	Class of protection: Applied part – type BF		

51	Guarded Round Burr D- 4.0mm, L-130mm		
52	Guarded Daimond burr D- 4.0mm, L-130mm		
53	Guarded Oval burr D- 4.0mm, L-130mm		
54	<b>RF system</b>		
55	System should be able to quickly and efficiently ablate, coagulate and hemostasis the target tissue at a relatively low temperature of 40~70°C. Based on thermal stability, immediate plasma response without delay can be implemented to reduce damage to the target area.		
56	RF System Probes: The system shall be compatible with both uniportal and biportal probes, allowing use in various surgical procedures as require		
57	Straight Probe Dia Ø4.3, Length 135mm		
58	Straight Probe Dia Ø4.3, Length 220mm		
59	Curved Probe, Dia Ø4.1, Length 135mm		
60	Ball type probe, Dia Ø2.8, Length 135mm		
61	Flexible Probe with length of minimum 370mm		
62	Flexible probe with legrh of 250mm		
63	Medical grade trolley		
9.2	<b>Mayfield head holding system for Neurosurgery</b>		
1	MAYFIELD SWIVEL HORSESHOE HEADREST (03)		
2	MAYFIELD ADULT REUSABLE SKULL PIN (04)		
3	MAYFIELD CHILD REUSABLE SKULL PIN (03)		
4	MAYFIELD PEDIATRIC HORSESHOE HEADREST (03)		
5	BALL SOCKET SWIVEL / MAYFIELD ULTRA BASE UNIT / MODIFIED ADAPTOR (03)		
	BUDDE HALO RETRACTOR CONSISTING OF:		
1	HALO CONTINUTRAC RETRACTOR RING (03)		

2	HALO 9" RETRACTOR ARM (03)		
3	HALO SUPPORT BRACKET (04)		
4	HALO 12" SUPPORT ROD (5/16") (04)		
5	HALO PATTIE TRAY (01)		
6	HALO MINIVISE (01)		
7	RETRACTOR BLADE 1/4" X 4" (06)		
8	3/8" X 4" RETRACTOR BLADE (06)		
9	5/8" X 4" RETRACTOR BLADE (06)		
10	3/4" X 4" RETRACTOR BLADE (06)		
11	1/2" X 4" RETRACTOR BLADE (06)		
12	2 MM X 4 1/2" MICRO RETR (04)		
13	2 MM X 5 1/2" MICRO RETR (04)		
14	2 MM X 6 1/2" MICRO RETR (04)		
15	4 MM X 4 1/2" MICRO RETR (04)		
16	4 MM X 5 1/2" MICRO RETR (04)		
17	4 MM X 6 1/2" MICRO RETR (04)		
18	HALO ADJUSTMENT WRENCH (03)		
19	HALO STERILIZATION CASE (03)		
20	Compatible Operation table (03)		
21	Training of personnel locally for installation and maintenance		
22	Compatibility with intraoperative MRI and CT scan		
<b>9.3</b>	<b>Electrosurgical Unit</b>		
<b>1</b>	<b>Model</b>		
<b>2</b>	<b>Make:</b>		

3	<b>Country of Origin:</b>		
4	<b>Country of Manufacturer:</b>		
5	<b>Post Warranty Series &amp; Maintenance Percentage services with parts</b>		
6	Description of function		
7	Electro surgical units are used cutting and coagulating electrically during surgery. Sometime called surgical Diathermy or. Cautery machine. Suitable for all Laparoscopic & open surgeries.		
8	<b>Operation Requirements</b>		
9	Microcontroller- based isolated Electro Surgical Generator		
10	System Configuration		
11	300 Watt Electro surgery Unit with complete accessories		
12	Technical specification		
13	Ergonomic operator interface ( quick step control)		
14	It shall be able to maintain set power over wider range of tissue		
15	It shall have built-in patient plate contact quality monitoring system for patients safety		
16	There shall be two simultaneous Coagulation facility in Monopolar.		
17	It shall ensure high frequency leakage monitoring and controlling system along with self-test during power ON.		
18	There shall be at least 5 modes in Monopolar & 02 modes in bipolar.		
19	There shall be audio and visual indication for easy interpretation. Different audible tones for activation and warning light indication for split or non –split patient plate connection.		
20	The unit shall have 03 pedal footswitch.		

21	Monopolar cut:		
22	Pure –continues output 300 W at 300 $\Omega$ Cf 1.5		
23	Low-cut-current for laparoscopic & general procedure, 200 W at 300, Cf 1.5		
24	Monopolar cong:		
25	Fulgurate-nominal frequency 550KHz 100 W at 500, cf7		
26	Desieate-nominal frequency 660KHz 100W at cf5.5		
27	Bipolar		
28	force –medium out voltage, 80 W at 100, CF1.5		
29	Cut- nominal frequency 660Khz 80W at 100 CF5.5		
30	Accessories spares and consumables		
31	footswitch standard (three pedal)		
32	hand with pencil with cable-disposable ;02 nos		
33	hand with pencil with electrode set –reusable: 1 nos		
34	bipolar forceps: 1 nos reusable		
35	bipolar cord for forceps : 1 nos reusable		
36	dual split pad plate : 2 nos disposable		
37	Operating environment		
38	The product offered shall be designed to be stored and operate normally under the condition of the purchaser country. The conditions include power supply climate temperature humidity etc.		
39	Power supply: 220-240VAC, 50Hz single phase fitted with appropriate plug. The power cable must be at least .3 meter in length.		
40	Standards and safety requirements		
41	Requirement for the safety of high frequency surgical equipment .		

42	User training		
43	The bidder must conduct user training g for this equipment to enable operator to use the equipment properly. The training shall include the use of all operation functions of the equipment .as well as routine checks and maintenance expected by users.		
9.4	<b>Neurosurgery Crainatome Drill</b>		
1	<b>1. Control unit QTY (1)</b>		
2	control unit with integrated irrigation pump		
3	easy <b>and</b> comfortable operation through self-explanatory <b>Touch Screen</b>		
4	Control unit stores the most recently used setting and recalls them automatically <b>when the</b> respective motor type gets reconnected.		
5	The control unit allows a customized adjustment <b>of</b> the <b>working parameters. The following</b> settings <b>can</b> be adapted to the individual <b>needs/habits</b>		
6	Any software updates can be performed locally <b>via</b> USB <b>Stick.</b>		
7	All applied parts can be connected to one cable - no need to <b>bring 2</b> cables <b>from the unsterile into the</b> sterile area (however <b>the</b> unit offers 2 motor connection sockets - <b>if the user prefers to</b> connect two motors simultaneously).		
8	<b>2. Foot control QTY (1)</b>		
9	rocker switch for pump <b>and</b> forward/reverse <b>selection</b>		
10	flush irrigation mode		
11	pedal can be disassembled for easy <b>cleaning</b>		
12	pedal can be rinsed under the tap		
13	well positioned holding rail allows <b>the convenient relocation of the pedal through the surgeon by</b> foot		

14	<b>3. High speed hand-piece Qty (1)</b>		
15	Length of hand-piece 70mm		
16	Length of hand-piece 100mm Qty (1)		
17	Length of hand-piece 130mm Qty (1)		
18	Length of hand-piece 170mm Qty (1)		
19	Technical Specification:		
20	<b>speed range 0-80,000 psi</b>		
21	Ergonomic design handpiece can be use <b>as straight and curved no need multiple handpiece</b> universal burr length - one burr fits all <b>handpiece</b> lengths less inventory <b>&amp; less costs</b>		
22	extremely large selection of high <b>class</b> burrs <b>for</b> excellent <b>cutting and reaming</b> performance small size and enhanced ergonomics trough <b>integrated motor</b>		
23	handpiece shaft only 5,6 mm in diameter <b>for good view and access</b>		
24	increased safety: burrs can only be exchanged when <b>headpiece in Off-position</b>		
25	smooth running characteristics through direct <b>drive (motor in line with the burr, no angle gears) automatic burr coupling</b> - burr just clicks in		
26	<b>ear</b> headpiece burr coding <b>by ring system</b>		
27	<b>4. Multifunctional High Speed Crainatome Motor QTY(2)</b>		
28	craniotome headpiece can be turned into a short handpiece for superficial drill <b>works</b> enabling all works to be done related to craniotomy		
29	Attachment and <b>burr</b> locked in On-position		
30	<b>Max. Motor speed 80,000 rpm</b>		
31	<b>5. Micro Saws</b>		
32	Micro <b>Sigittal Saw</b> Qty (1)		
33	Micro Reciprocating Saw Qty (1) <b>Technical Specification:</b>		

34	speed range 8,000-20,000 strokes		
35	very small saw blade couplings for <b>good</b> view into <b>the</b> operating site		
36	<b>scalpel blade like</b> saw blade coupling for <b>easy</b> handling <b>and</b> economic <b>saw</b> blades		
37	sagittal saw: saw blade <b>can</b> be adjusted in <b>steps</b> of 45°		
38	<b>6. Perforator Drive with Hudson coupling QTY (2)</b>		
39	Including <b>accessories</b>		
40	Cranial <b>perforator QTY (3)</b>		
41	<b>Spare cutter QTY (3)</b>		
42	<b>7. Dura-guard</b>		
43	01 For standard size		
44	01 For <b>Pediatric</b>		
45	<b>01 fixed</b> dura-guard		
46	01 <b>Long</b> dura guard		
47	<b>8. Tubing set for irrigation QTY (10)</b>		
48	<b>9. Spray Nozel</b>		
49	<b>For handpiece</b> irrigation		
50	<b>10 Motor cable for hand-piece QTY (2)</b>		
51	<b>11 Burrs and Cutter</b>		
52	Rozen <b>burr 2.3mm 6</b>		
53	<b>Rozen</b> burr 3mm for soft <b>cut 6</b>		
54	<b>Diamond</b> burr 2.3mm 6		
55	Diamond <b>burr, coarse</b> 3.0mm 6		
56	Craniotome cutter <b>straight type10</b>		
57	Craniotome cutter <b>spiral type 10</b>		

<b>10</b>	<b>Pathology Department</b>		
<b>10.1</b>	<b>Blood Bank Refrigerator -Standard Specification</b>		
<b>1</b>	<b>1) Temperature performance</b>		
<b>2</b>	· Operating range: 2 °C to 6 °C		
<b>3</b>	· Set point: 4 °C		
<b>4</b>	· Uniform temperature distribution ( $\pm 1$ °C)		
<b>5</b>	· Rapid recovery after door opening		
<b>6</b>	· Continuous digital temperature display		
<b>7</b>	<b>2) Monitoring &amp; alarms</b>		
<b>8</b>	· Microprocessor temperature controller		
<b>9</b>	· Audible & visual alarms for:		
<b>10</b>	· High/low temperature		
<b>11</b>	· Power failure		
<b>12</b>	· Door open		
<b>13</b>	· Sensor failure		
<b>14</b>	· Battery backup for alarm & display ( $\geq 48$ hours)		
<b>15</b>	· Data logging capability (USB/cloud optional)		
<b>16</b>	· External temperature probe port		
<b>17</b>	<b>3) Construction</b>		
<b>18</b>	· Inner chamber: Stainless steel		
<b>19</b>	· Outer body: Powder-coated steel		
<b>20</b>	· High-density CFC-free insulation		
<b>21</b>	· Double/triple glass door with heater to prevent condensation		
<b>22</b>	· Magnetic door gasket		

23	<b>4) Storage configuration</b>		
24	· Adjustable stainless steel shelves or drawers		
25	· Capacity options: 100-600 blood bags (depending on model)		
26	· Clear organization for labeling & FIFO workflow		
27	<b>5) Cooling system</b>		
28	· Forced air circulation for uniform cooling		
29	· Hermetically sealed compressor		
30	· Eco-friendly refrigerant		
31	· Automatic defrost with evaporation tray		
32	<b>6) Safety &amp; compliance</b>		
33	· WHO / AABB compliant storage range		
34	· Electrical safety certification		
35	· Lockable door		
36	· Over-temperature protection		
37	<b>7) Electrical requirements</b>		
38	· 220-240 V, 50 Hz (typical for Pakistan)		
39	· Voltage stabilizer recommended		
40	· Low power consumption		
41	<b>8) Optional features</b>		
42	· Remote alarm connection		
43	· GSM/Wi-Fi monitoring		
44	· Electrical safety certification		
45	· Lockable door		
46	· Over-temperature protection		
47	<b>7) Electrical requirements</b>		

48	· 220-240 V, 50 Hz (typical for Pakistan)		
49	· Voltage stabilizer recommended		
50	· Low power consumption		
51	<b>8) Optional features</b>		
52	· Remote alarm connection		
53	· GSM/Wi-Fi monitoring		
54	· Chart recorder		
55	· Castor wheels		
56	· Internal LED lighting		
57	· Common reference models (for benchmarking)		
58	· Haier HXC-608 Blood Bank Refrigerator		
59	· Helmer HBR120 Blood Bank Refrigerator		
10.2	<b>FFP (Fresh Frozen Plasma) Refrigerator - Technical Specification</b>		
1	<b>1) Temperature performance</b>		
2	· Operating temperature range: -30 °C to -40 °C (adjustable)		
3	· Uniform temperature distribution: $\pm 2$ °C		
4	· Rapid pull-down capability after door opening		
5	· Continuous digital temperature display		
6	<b>2) Capacity &amp; construction</b>		
7	· Capacity options: 200-500 liters (or as required)		
8	· Exterior: powder-coated steel or stainless steel		
9	· Interior: corrosion-resistant stainless steel/aluminum		
10	· High-density polyurethane insulation		

11	· Multiple compartments/shelves for plasma bags		
12	<b>3) Cooling system</b>		
13	· CFC-free refrigerant		
14	· Heavy-duty hermetic compressor		
15	· Forced air circulation for uniform cooling		
16	· Automatic defrost (or controlled manual defrost)		
17	<b>4) Control &amp; monitoring</b>		
18	· Microprocessor temperature controller		
19	· Digital LED/LCD display		
20	· High/low temperature alarm		
21	· Door-open alarm		
22	· Sensor failure alarm		
23	· Battery backup for alarms & display		
24	· External temperature probe port		
25	<b>5) Safety features</b>		
26	· Lockable insulated door		
27	· Magnetic gasket for airtight seal		
28	· Over-temperature protection		
29	· Electrical surge protection		
30	<b>6) Power requirements</b>		
31	· 220-240 V AC, 50 Hz		
32	· Low power consumption		
33	· Compatible with UPS/generator backup		
34	<b>7) Documentation &amp; compliance</b>		
35	· Calibration certificate		

36	· CE/ISO compliant manufacturing		
37	· User manual & service documentation		
38	<b>8) Optional features</b>		
39	· Temperature data logger		
40	· Remote alarm contact		
41	· USB/Wi-Fi monitoring		
42	· Castor wheels with brakes		
43	· Internal LED lighting		
<b>10.3</b>	<b>Laboratory Refrigerator (-20C To -30C )</b>		
<b>1</b>	<b>Laboratory Refrigerator (-20C) with the following specification.</b>		
<b>2</b>	· External dimensions (W x D x H) : 520x700x1997 to 616 x 770 x 1802		
<b>3</b>	· Internal dimensions (W x D x H) : 400x575x1505 to 472 x 614 x 1262		
<b>4</b>	· Volume: 250 -500liters		
<b>5</b>	· 3-5 inner compartments		
<b>6</b>	· <b>Performance</b>		
<b>7</b>	· Cooling performance: -20 to -30 °C		
<b>8</b>	· Temperature setting range: -35 to -18 °C		
<b>9</b>	· Temperature control range: -30 to -20 °C		
<b>10</b>	· Ambient Temperature: 30 to 40 °C		
<b>11</b>	· <b>Control</b>		
<b>12</b>	· Controller: Microprocessor, non-volatile memory		
<b>13</b>	· Display: LED		

14	· Temperature range: Thermoistor		
15	· Refrigeration		
16	· Cooling method: Direct		
17	· Compressor : Hermetic		
18	· Refrigerant: HFC		
19	· <b>Construction</b>		
20	· Exterior material: Painted Steel		
21	· Interior material: Painted Steel		
22	· Outer door: 01-Qty		
23	· Outer door lock: yes		
24	· Basket / Drawers; 06-08 -Qty		
25	· Max. Load - per shelf: 20-30 kg		
26	· Access port: 01-Qty		
27	· <b>Alarms</b>		
28	· High/low temperature alarm, Sensor Alarm,		
29	· Power supply 220v, 50Hz		
<b>10.4</b>	<b>Biological Refrigerator 2-8 °C</b>		
<b>1</b>	Upright Freezers 2-8 °C		
<b>2</b>	upright double glass door, capacity 600 L to 1008 L, 03-05 inner compartments,		
<b>3</b>	03-05 inner compartments		
<b>4</b>	Digital display with temperature monitoring and alarm system.		
<b>5</b>	Temperature Range: 02-08°C		

<b>6</b>	<b>Installation &amp; Training:</b> On-site vendor installation and user training.		
<b>10.5</b>	<b>Plasma Freezer -30 to -40 °C</b>		
<b>1</b>	<b>Specification</b>		
<b>2</b>	· Adjustable temperature range: -15°C to -40°C		
<b>3</b>	· Total capacity: 1000 Liters or above		
<b>4</b>	· The temperature accuracy is 0.1 °C.		
<b>5</b>	· Independent microprocessor control		
<b>6</b>	· Input voltage range: 190V~240V or better		
<b>7</b>	· Double Door		
<b>8</b>	· Each Compartment must have independent Cooling System/Compressor & Temperature control		
<b>9</b>	· 10 or more Drawers		
<b>10</b>	· Environmentally friendly CFC-free refrigerant and foam layer		
<b>11</b>	· Safety door lock and controller setting password to prevent unauthorized access.		
<b>12</b>	· Build-in back-up battery to power temperature controller when power failure or system error.		
<b>13</b>	· Power failure protection: turn on delay of the cooling system after power failure.		
<b>14</b>	· Controller error protection: when controller or two sensors failed, the device will keep working depending on the preset program.		
<b>15</b>	· AUDIBLE AND VISABLE ALARMS FOR:		
<b>16</b>	o Temperature internal and ambient		
<b>17</b>	o Power failure		
<b>18</b>	o Battery low		

19	o Door open		
20	o Sensor broken		
21	o System failure, Direct Cooling		
22	· Manual/Automatic Defrost		
23	· Test Hole		
24	· USB/Data Logger for Temperature Recording		
<b>10.6</b>	<b>Automated Tissue Processor</b>		
1	· Capacity of Minimum 200-300 cassettes		
2	· Upright placement of cassette specimen		
3	· A built-in clock for immediate start and delayed start functions at any reagent position.		
4	· LCD monitor displays command and programming.		
5	· 10 or more reagent bottles		
6	· Selectable processing parameters including heat, vacuum/pressure, immersion time, drain time and agitation.		
7	· Heating system active flow, non-microwave, rapid heat		
8	· Paraffin baths 2-3 or better		
9	· Paraffin temperature range Minimum 40-65 C <sup>0</sup>		
10	· Totally automated		
11	· Vacuum and/ fuel control		
12	· On-board fume control		
13	· Fail-safe system for ultimate tissue safety		
14	· Audible alarms and automatic alerts for service, maintenance and reagent change		
15	· Must be accompanied with operator manual/ guide and		

	service log.		
<b>10.7</b>	<b>Tissue Embedding console System</b>		
<b>1</b>	· Auto start up and shut down		
<b>2</b>	· Fully programmable menu-driven software		
<b>3</b>	· Adjustable LED lighting		
<b>4</b>	· Left-right/ right-left operation		
<b>5</b>	· Up to 05 liter or more paraffin reservoir		
<b>6</b>	· Forceps wells with magnifier		
<b>7</b>	· Adjustable temperature of electric forceps		
<b>8</b>	· Cryo module down to -10°C or better		
<b>9</b>	· Hot plate/ warming area large enough for 10 cassettes or more on each side		
<b>10</b>	· Large cold plate		
<b>11</b>	· Must be accompanied with operator manual/ guide and service log		
<b>10.8</b>	<b>Tissue Flotation Water Bath</b>		
<b>1</b>	· Temperature range 30-65 ±5 at 20-25 ambient temperature		
<b>2</b>	· Over heat and heat on indicator		
<b>3</b>	· Cover lid when not in use		
<b>4</b>	· Have rim space for drying slides		
<b>5</b>	· Total weight mostly up to 2.5-04kg		
<b>6</b>	· Stainless steel bowl with corrosive resistance		
<b>7</b>	· Black tapered bowl to provide contrast against wax sections		
<b>8</b>	· Power requirement 110-120 or 220-240		

9	· Accompanied with operator manual/ guide		
<b>10.9.</b>	<b>Dual Head Teaching Microscope with Camera</b>		
1	· 10x focusing eyepieces with eye guards, 22mm field of view or better		
2	· Trinocular viewing head with photo tube; inclined 30 <sup>0</sup> , rotatable360 <sup>0</sup>		
3	· Green LED pointer with adjustable brightness control		
4	· Binocular head, style inclined 30 <sup>0</sup> or better		
5	· Dual observation (Side by side) optical bridge with adjustable height support for secondary unit		
6	· Light distribution: Binocular 100% or binocular/ trinocular 20%/ 80%		
7	· 48-70mm interpupillary distance setting		
8	· ±5Diopter adjustment		
9	· Reversed quintuple nosepiece		
10	· A/S infinity corrected plan 2x, 4x, 10x, 20x and 40xR objectives		
11	· Ceramic mechanical stage, tension adjustable coaxial controls		
12	· N.A 0.9 Flip top condenser with iris diaphragm		
13	· Coaxial coarse and fine focusing controls		
14	· Variable LED illumination		
15	· Dust cover, clear blue filter, power cord		
16	· Optional for camera with same manufacturer		
<b>10.10.</b>	<b>Multiheaded Teaching Microscope with camera and led</b>		

	<b>screen</b>		
<b>1</b>	· 10x focusing eyepieces with eye guards, 22mm field of view or better		
<b>2</b>	· Trinocular viewing head with photo tube; inclined 30 <sup>0</sup> , rotatable 360 <sup>0</sup>		
<b>3</b>	· Green LED pointer with adjustable brightness control		
<b>4</b>	· Binocular head, style inclined 30 <sup>0</sup> or better		
<b>5</b>	· Dual observation (Side by side) optical bridge with adjustable height support for secondary unit		
<b>6</b>	· Light distribution: Binocular 100% or binocular/ trinocular 20%/ 80%		
<b>7</b>	· 48-70mm interpupillary distance setting		
<b>8</b>	· ±5Diopter adjustment		
<b>9</b>	· Reversed quintuple nosepiece		
<b>10</b>	· A/S infinity corrected plan 2x, 4x, 10x, 20x and 40xR objectives		
<b>11</b>	· Ceramic mechanical stage, tension adjustable coaxial controls		
<b>12</b>	· N.A 0.9 Flip top condenser with iris diaphragm		
<b>13</b>	· Coaxial coarse and fine focusing controls		
<b>14</b>	· Variable LED illumination		
<b>15</b>	· Dust cover, clear blue filter, power cord		
<b>16</b>	· Optional for camera with same manufacturer		

**SNO: 02      LOT-CSSD & LAUNDRY EQUIPMENT**

	<b><u>MAKE:</u></b>	<b>MANDATORY TO QUOTE FOR EACH LOT</b>	
	<b><u>MODEL:</u></b>		
	<b><u>COUNTRY OF ORIGIN &amp; MANUFACTURE:</u></b>		
<b>ITEM NAME WITH MTL-HMC REQUIRED SPECIFICATIONS</b>		<b>FIRM QUOTED SPECIFICATI ONS</b>	<b>Reference/ Annexure/Pag e No.</b>
<b>A</b>	<b><u>CSSD EQUIPMENT</u></b>		
<b>1.0</b>	<b>CLEANING &amp; WASHING UNIT (LOCAL)</b>		
<b>1.1</b>	o Cleaning & washing unit, Approx. 2400 x 700 x 900 mm (W x D x H), consisting of Stainless Steel square meter AISI 304. Table Top with 100 mm backsplash, made of SS sheet AISI 304.		
<b>1.2</b>	o 02 No's Sinks each approx. 500 x 500 x 250 mm made of stainless steel with the provision of counter top; equipped with drain valve and stand pipe and with siphon trap. Faucet with mixer.		
<b>1.3</b>	o 02 No's of integrated Spray Guns for dematerialized water/ air with 08 cleaning nozzles, hose, table lead through with each Cleaning & washing Unit (Imported)		
<b>2.0</b>	<b>ULTRASONIC CLEANER</b>		
<b>2.1</b>	o Ultrasonic Cleaner integrated type (Flush Mounted), cleaning chamber constructed of corrosive resistant 304 SS. Heating thermostatically controlled. Digital display of time and temperature.		
<b>2.2</b>	o Control panel window should has degassed time setting, cleaning time from 0-99 min & temperature setting up to 70 C.		
<b>2.3</b>	o The machine should have capacity to memorize 8-10 programs & Quick program function to start		

	quickly.		
<b>2.4</b>	o Tank Capacity 28 Lit. Or above.		
<b>2.5</b>	o System complete with basket, lid and other standard accessories.		
<b>2.6</b>	o Operation 220V, 50 Hz.		
<b>3.0</b>	<b>WASHING /DISINFECTION / DRYING UNIT (DOUBLE DOOR)</b>		
<b>3.1</b>	o Microprocessor controlled automatic powered vertical down sliding two-glass doors type.		
<b>3.2</b>	o Washing chamber, washing arms, pre heating tank and water filters made of high quality stainless steel AISI 316 L.		
<b>3.3</b>	o Colored Light inside of chamber, Frame made of stainless steel AISI 304.		
<b>3.4</b>	o Touch screen 7'' or better display on loading side and unloading side with illuminated door operation switch		
<b>3.5</b>	o Integrated electric element as heating.		
<b>3.6</b>	o Capable of washing internal and external surface of items such as instruments, glassware, tubing, syringes, hollow wares etc. Stainless Steel construction.		
<b>3.7</b>	o The entire control unit and accompanying electrical components must be installed in a clearly designed and easy to service control cabinet with IP 55 protection, which can be fully pulled out.		
<b>3.8</b>	o Analog pump pressure monitoring.		
<b>3.9</b>	o Four-dimensional Frame rack concept or better.		
<b>3.10.</b>	o Cool Touch rubber handles at the racks prevent burning when handling the hot racks after drying		

3.11	o The complete control panel must be installed hygienically behind an easy to disinfect glass panel on loading & unloading side of machine		
3.12	o Floor model chamber loading capacity 12-15 DIN basket.		
3.13	o 2 dosing pumps of chemical products complete with independent flow meters and sensor.		
3.14	o Dosing inlets made from stainless steel		
3.15	o Two step drying to optimize drying and achieve short drying times or Turbo drying.		
3.16	o 20-25 programs possibility and Fast/short cycle with pre heating tank for demineralized water.		
3.17	o Time controlled Stand-By operation (energy saving).		
3.18	o Exhaust air condenser with condensate drain or Exhaust air draught interrupter.		
3.19	o Operation 380-400V.		
3.20	o Built in Thermal Printer		
3.21	o The equipment must be ready for remote service access.		
3.22	o Energy efficient Product will be preferred.		
3.23	o <b>ACCESSORIES FOR WASHER DISINFECTOR</b>		
3.24	o 2 x OP Cart for 10/12 trays of instruments		
3.25	o 20/24 x Instrument trays for OP Cart		
3.26	o 4 x Transfer trolleys for cart.		
4	<b>4.HEAVY DUTY STEAM STERILIZER (DOUBLE DOOR)</b>		

4.1	o High pressure Steam Sterilizer each with integrated steam generator. Compact design with small footprint with service access from front panel only.		
4.2	o Fully automatic, programmable, Microprocessor controlled with industrial PLC		
4.3	o Touch screen colored display 10'' on loading & 7'' unloading side of machine.		
4.4	o Automatic motorized/pneumatic two doors pass through system. Time cycled, working pressure 32 psi.		
4.5	o High degree of connectivity with Ethernet and USB ports.		
4.6	o Batches must be able to save to flash memory & up to 20'000 batches or better.		
4.7	o Safety interlock. Temperature & Pressure recorder. Chamber pressure indicator. Cycle indicator to determine the phase of sterilization cycle. Program/Cycle selection.		
4.8	o Automated sensor adjustment, correction through software.		
4.9	o Electric chain drive for doors .Steam displaced long life door sealing		
4.10.	o Complete with standard accessories and removable shelves, capable of taking both packets and containers of all standard sizes.		
4.11	o Chamber capacity 640ltr 650ltr ( <b>08 STU</b> ), rectangular shape.		
4.12	o Chamber & steam Generator made of AISI 316 L.		
4.13	o The jacket and doors made of AISI 316 Ti or better.		
4.14	o Separate Steam Injection for chamber & jacket.		
4.15	o The software must have HMI P&ID Machine & steam Generator.		

4.16	o Built in Thermal Printer		
4.17	o Built in Electronic Bowie-Dick test and routine batch control (integrated Bowie & Dick test).		
4.18	o The machine must has high efficiency double stage water ring vacuum pump.		
4.19	o The system complete with built-in water saving system, automatic separate heat exchanger.		
4.20	o Media monitoring system i.e. to monitor & display real time monitoring & display of fluids monitoring values on screen i.e compressed air, soft water, Demi water with visual & acoustic alarms in case of absence.		
4.21	o Condensate cooling device that cools the condensate to a temperature of approx. 55°C by a Thermal water valve.		
4.22	o The equipment must be ready for remote service access.		
4.23	o Energy efficient Product will be preferred.		
4.24	o <b>ACCESSORIES FOR 02 STEAM STERILIZER</b>		
4.25	o 2 x Transport Trolleys		
4.26	o 2 x Loading/unloading Cart		
4.27	o UPS of suitable capacity with minimum 2-5 minutes for Controller cum display for monitoring and controlling of parameters during power shedding provided/ installed by the manufacturer.		
5.0	<b>HEAVY DUTY STEAM STERILIZER</b>		
5.1	o High pressure Steam Sterilizer each with integrated steam generator. Compact design with small footprint with service access from front panel only.		
5.2	o Fully automatic, programmable, Microprocessor controlled with industrial PLC		

<b>5.3</b>	o Touch screen colored display 10'' on loading & 7'' unloading side of machine.		
<b>5.4</b>	o Automatic motorized/pneumatic two doors pass through system. Time cycled, working pressure 32 psi.		
<b>5.5</b>	o High degree of connectivity with Ethernet and USB ports.		
<b>5.6</b>	o Batches must be able to save to flash memory & up to 20'000 batches or better.		
<b>5.7</b>	o Safety interlock. Temperature & Pressure recorder. Chamber pressure indicator. Cycle indicator to determine the phase of sterilization cycle. Program/Cycle selection.		
<b>5.8</b>	o Automated sensor adjustment, correction through software.		
<b>5.9</b>	o Electric chain drive for doors. Steam displaced long life door sealing		
<b>5.10.</b>	o Complete with standard accessories and removable shelves, capable of taking both packets and containers of all standard sizes.		
<b>5.11</b>	o Chamber capacity 400ltr 450ltr ( <b>04 STU</b> ), rectangular shape.		
<b>5.12</b>	o Chamber & steam Generator made of AISI 316 L.		
<b>5.13</b>	o The jacket and doors made of AISI 316 Ti or better.		
<b>5.14</b>	o Separate Steam Injection for chamber & jacket.		
<b>5.15</b>	o The software must have HMI P&ID Machine & steam Generator.		
<b>5.16</b>	o Built in Thermal Printer		
<b>5.17</b>	o Built in Electronic Bowie-Dick test and routine batch control (integrated Bowie & Dick test).		
<b>5.18</b>	o The machine must has high efficiency double stage water ring vacuum pump.		

5.19	o The system complete with built-in water saving system, automatic separate heat exchanger.		
5.20	o Media monitoring system i.e. to monitor & display real time monitoring & display of fluids monitoring values on screen i.e compressed air, soft water, Demi water with visual & acoustic alarms in case of absence.		
5.21	o Condensate cooling device that cools the condensate to a temperature of approx. 55°C by a Thermal water valve.		
5.22	o The equipment must be ready for remote service access.		
5.23	o Energy efficient Product will be preferred.		
5.24	<b>ACCESSORIES FOR 02 STEAM STERILIZER</b>		
5.25	o 2 x Transport Trolleys		
5.26	o 2 x Loading/unloading Cart		
5.27	o UPS of suitable capacity with minimum 2-5 minutes for Controller cum display for monitoring and controlling of parameters during power shedding provided/ installed by the manufacturer.		
6.0	<b>6. TABLE TOP STERILIZER</b>		
6.1	o Fully automatic microprocessor-controlled autoclave		
6.2	o Control Panel with display of following parameters i.e. chamber temperature, pressure, Sterilization & drying time, type of program selected as well as, active phase of sterilization & soft keyboard for program selection.		
6.3	o The machine must have pre-heating program.		
6.4	o The machine must have extra dry function when sterilizing large volumes of wrapped and/or porous materials on quick selection mode.		

<b>6.5</b>	o The machine must has start delay function allows a delayed start of the cycle to be set.		
<b>6.6</b>	o The autoclave must be equipped with an automatic energy-saving system		
<b>6.7</b>	o Chamber Capacity: 50-60 L or ( 1 STU)		
<b>6.8</b>	o Chamber dimensions : Ø 350 x D 622 mm		
<b>6.9</b>	o Loading Capacity:12-15 kg instruments or 6-7 Kg linen		
<b>6.10.</b>	o Built-in Electric Steam Generator made of stainless steel AISI 316L		
<b>6.11</b>	o Used Water Tank : 4.5 -5 L		
<b>6.12</b>	o Clean Water Tank: 4.5-5 L.		
<b>6.13</b>	o Maximum Temperature : 138 0C		
<b>6.14</b>	o Bacteriological Filter : 70 mm/0.3 micron		
<b>6.15</b>	o 5 or more sterilization cycles, money saving for every needs		
<b>6.16</b>	o Built in Reverse osmosis		
<b>6.17</b>	o Vacuum, Bowie & Dick & helix test program		
<b>6.18</b>	o Built in Thermal Printer		
<b>6.19</b>	o Automatic electrical motorized door lock		
<b>6.20</b>	o Built-in water quality sensor (conductivity sensor) Easy to use by sing		
<b>6.21</b>	o Machine supplied with 2 x standard Trays (anodized aluminum)		
<b>6.22</b>	o Supply: 3 x 400 V, 50 Hz/13 Amp.		
<b>7.0</b>	<b>7. ETHYLENE OXIDE STERILIZER</b>		

7.1	o Ethylene Oxide Sterilizer is microprocessor controlled low temperature single door ethylene oxide sterilizer with automatic, inbuilt aeration cycle and safety interlock for all parameters according to international standards.		
7.2	o The electronic controller automatically stop the cycle and displays the error code if errors are detected.		
7.3	o Operation without need of water or vacuum lines		
7.4	o Compatible with all heat or moisture sensitive devices including endoscopes.		
7.5	o Puncturing of the cartridge is under forced vacuum inside chamber / load.		
7.6	o 100% EO sterility-based system with most efficacious low temp sterilization option for all types of devices.		
7.7	o Operate at a vacuum (i.e., under negative pressure) in a locked chamber for operator safety.		
7.8	o The sterilant is gentle on device materials thus extend device life and reduce the need for repairs.		
7.9	o The sterilant is relatively be non-corrosive to plastic, metal, or rubber materials.		
7.10.	o The sterilization and aeration happen in the same cabinet.		
7.11	o Hot air circulation inside chamber for even heat distribution.		
7.12	o Integrated printer.		
7.13	o <b>TECHNICAL SPECIFCATIONS</b>		
7.14	o Chamber Volume: 100 Liter or more.		
7.15	o Cycle Temperature: 2 x programmable cycles i.e., 50°C and 30°C		
7.16	o Control: Automatic Cycle stop and show error code		

	in case of error.		
<b>7.17</b>	o Display: Digital display to show all parameters and cycle status.		
<b>7.18</b>	o Cartridge Loading: Gas Cartridge to be activated inside the Locked and negatively pressured optimized chamber / liner bag.		
<b>7.19</b>	o Loading / Unloading: Single Door		
<b>7.20</b>	o <b>STANDARD ACCESSORIES INCLUDE;</b>		
<b>7.21</b>	o 1 x EO Gas Ablator		
<b>7.22</b>	o 2 x EO Sterilization Kit for Sterilizer (Box of 14)		
<b>7.23</b>	o 1 x Self-Contained Biological indicator for EO (Box of 100)		
<b>7.24</b>	o 1 x Incubator for SCBI (programmable)		
<b>8.0</b>	<b>. PLASMA STERILIZER – (DOUBLE DOOR)</b>		
<b>8.1</b>	o Low Temperature Sterilizer H2O2 with Plasma generator inside the chamber		
<b>8.2</b>	o Intended for use in terminal sterilization of cleaned, rinsed, and dried, reusable metal and non-metal heat-sensitive medical devices used in healthcare.		
<b>8.3</b>	o Chamber volume: 135 Liters or more (Usable Volume), with two trays/baskets		
<b>8.4</b>	o Automatic vertical sliding Double Door.		
<b>8.5</b>	o The door should be operatable from touch screen & foot sensor.		
<b>8.6</b>	o Rapid warm-up & Drying system		
<b>8.7</b>	o PLC control with smart HMI 7 inch or more		
<b>8.8</b>	o Internal cycle data storage of up to 20,000 cycles or more.		

<b>8.9</b>	o Validated software according DIN EN 62304 or equivalent.		
<b>8.10.</b>	o 3 standard programs or more.		
<b>8.11</b>	o USB History Memory to retrieve the cycle data		
<b>8.12</b>	o Chamber should made from solid, high-quality, stainless-steel type AISI 304/316L.		
<b>8.13</b>	o The entire chamber must be thermally insulated with insulation made from EPDM or better.		
<b>8.14</b>	o The inner chamber wall & fittings must be electro polished.		
<b>8.15</b>	o The chamber should be completely encased with a heating jacket & must be heated		
<b>8.16</b>	o The machine must have forced air circulation fan inside the chamber to ensure uniform air circulation during the warm-up phase.		
<b>8.17</b>	o Front-Loading with an easy-to-use loading system supporting H2O2 Sterilant Cartridge		
<b>8.18</b>	o The machine must have illuminated LED status color indicators for machine status.		
<b>8.19</b>	o PLC control with smart HMI with P&ID control for easy troubleshooting & access to machine components.		
<b>8.20</b>	o The machine must have Powerful, quiet, oil-sealed vacuum pump having output of 750 W and a suction capacity of 25.7 m <sup>3</sup> /h or more		
<b>8.21</b>	o High Efficiency Particulate Arresting Filter with a surface of 725 cm <sup>2</sup> , it has a flow rate of 100 L/min or more.		
<b>8.22</b>	o The machine vacuum system must have catalytic converter & catalytic filter.		
<b>8.23</b>	o The machine has thermocouples entry port for validation purpose.		

8.24	o Built in door safety system and other safety feature according to European Standard		
8.25	o The machine must have Cartridge to run 15-18 cycles (minimum).		
8.26	o Alarms for Safety.		
8.27	o Uninterruptible power supply for the control system. In the event of a power failure for up to 2-5 minutes, the control system must remain active and relevant cycle information continues to be saved.		
8.28	o Temp range 55-60°C		
8.29	o The machine must be on castors/wheels for service access mobility.		
8.30	o The Offered model must be validated by third party to sterile the Davinci instruments		
8.31	o System should be operable at 220VAC +/- 10% 50Hz		
9.0	<b>PROTECTED VALVES</b>		
9.1	Protected Valves” mod. container In aluminium, standard anodizing		
	600 x 300 x 160 h		
9.2	Protected Valves” mod. container In aluminium, standard anodizing		
	600 x 300 x 210 h		
9.3	Protected Valves” mod. container In aluminium, standard anodizing		
	600 x 300 x 135 h		
10.0	<b>WATER TREATMENT UNIT (RO PLANT)</b>		
10.1	o Water treatment unit have to supply the treated		

	water for laundry equipment.		
<b>10.2</b>	o Water treatments made of USA, Europe or Japanese components; assembled & provided locally.		
<b>10.3</b>	o The capacity and flow should be as per equipment requirement of CSSD		
<b>11</b>	<b>AIR COMPRESSOR (Imported)</b>		
<b>11.1</b>	o Suitable capacity with air tank as per requirement of the CSSD unit on full load.		
<b>12</b>	<b>TRANSPORT &amp; DISTRIBUTION TROLLEY (LOCAL)</b>		
<b>12.1</b>	o 02 shelves made of stainless steel,		
<b>12.2</b>	o · Size 700 x 500 x 800 mm. (W x D x H)		
<b>13</b>	<b>PAPER DISPENSING TROLLEY (LOCAL)</b>		
<b>13.1</b>	o Movable paper dispenser trolley made of stainless steel AISI 304 for storing of sterilization paper sheets at packing tables.		
<b>13.2</b>	o 04 frames for paper sheet of 1200mm and one bottom shelf.		
<b>13.3</b>	o Mobile with two lockable wheels.		
<b>14.0</b>	<b>PAPER SEALING MACHINE</b>		
<b>14.1</b>	o Microprocessor controlled automatic heat sealer for sterilization bags and pouches.		
<b>14.2</b>	o Stainless steel body with printing mechanism.		
<b>14.3</b>	o Adjustable temperature up to 200 degree Centigrade, Speed approx. 10m/min.		

<b>15.0</b>	<b>CUTTING DEVICE</b>		
<b>15.1</b>	o For storage and preparation of paper/Plastic bags in rolls.		
<b>15.2</b>	o The cutting knife is made of tempered stainless steel and is self-grinding,		
<b>15.3</b>	o Size 700-1000 mm.		
<b>16.0</b>	<b>TAPE DISPENSER (Imported)</b>		
<b>16.1</b>	o Tape dispenser for autoclave tape. Main parts of the dispenser are made of metal. Design for two roll of tape.		
<b>17.0</b>	<b>FREE STANDING BASKETS RACK (LOCAL)</b>		
<b>17.1</b>	o Free standing basket storage rack 04 single sections made of Stainless Steel AISI 304.		
<b>17.2</b>	o Size approx. 1000 x 400 x 1800 mm.		
<b>18.0</b>	<b>PACKING TABLE WITH ILLUMINATED MAGNIFYING LAMP (LOCAL)</b>		
<b>18.1</b>	o Tabletop of Stainless Steel with one or two drawers, Stand of stainless steel AISI 304 including two top mounted shelves and Illuminated Magnifier.		
<b>18.2</b>	o Dimensions approx. 1600 X 800 X 800 mm.		
<b>19.0</b>	<b>. LINEN TABLE (LOCAL)</b>		
<b>19.1</b>	o Inspection and folding for linen, the tabletop will be made of Stainless Steel AISI 304 top with inspection window.		
<b>19.2</b>	o The frame is made of stainless steel.		

<b>19.3</b>	o Approx. Dimensions (1600 X 800 X 900 mm).		
<b>20.0</b>	<b>INSTRUMENT TRAYS (LOCAL)</b>		
<b>20.1</b>	o Made of stainless steel AISI 304 with dimension approx...(480 x 250 x 50) mm standard DIN trays with handle		
<b>21.0</b>	<b>MODULAR WIRE BASKETS (LOCAL)</b>		
<b>21.1</b>	o Modular wire Basket of stainless steel for disinfections, loading/unloading equipment,		
<b>21.2</b>	o Sterilizers as well as storage racks and distribution trolley.		
<b>21.3</b>	o Pile able when loaded /stackable.		
<b>21.4</b>	o Compatible with Instruments/utensils of the system.		
<b>21.5</b>	o Size approx. (580 X 390 X190 mm) acceptable up to the tolerance +10% in size.		
<b>22.0</b>	<b>. CLOSED TRANSPORT TROLLEY (Locally Fabricated)</b>		
<b>22.1</b>	o Closed transport trolley made of stainless steel AISI 304, lockable,		
<b>22.2</b>	o Front wheels with directional locks and back wheels with brakes.		
<b>22.3</b>	o Size approx. (900 X 650 X 1250 mm)		
<b>23.0</b>	<b>MANUAL POWER TROLLEY WASH</b>		
<b>23.1</b>	o Max temperature: 50°C		
<b>23.2</b>	o Pressure: 2 - 6 bar		
<b>23.3</b>	o Flow rate: 8 l/min		

<b>23.4</b>	o Dilution ratio: 211:1 - 11:1 (0.5% - 10.90%)		
<b>23.5</b>	o Dimensions: 380mm (H), 260mm (W), 90mm (D)		
<b>23.6</b>	o Weight: 3.3 kg (body only)		
<b>23.7</b>	o Backflow protection certified ACSE, DVGW, Kiwa, Belgacua, and SVGW		
<b>23.8</b>	o Hose length: 10 - 25 meters		
<b>23.9</b>	o Chemical tank holder: 5 - 20 liters		
<b>24.0</b>	o 1 product standard model		

<b>LAUNDRY EQUIPMENT</b>			
<b>B.</b>	<b>Medical Grade Laundry Equipment (Technical Specifications)</b>		
<b>1.0</b>	<b>Washer Extractor (Electric)</b>		
<b>1.1</b>	· The Washer Extractor shall be Electric heating free standing type.		
<b>1.2</b>	· Fully automatic with front loading/unloading.		
<b>1.3</b>	· Fully microprocessor control, programmable with 90 or more configurable programs.		
<b>1.4</b>	· Drum made of Stainless steel AISI 304 without any welds, perforated blades & viton seals.		
<b>1.5</b>	· In all vital parts for high degree of rust protection, Stainless steel.		
<b>1.6</b>	· Front & pre coated side panels. 4 compartments (2 for liquids and 2 for powder) for internal dosing.		
<b>1.7</b>	· 8-10 independent Electric signals with adjustable length for external dosing		

1.8	· The unit must have management and communication system between the inverter, the motor and the microprocessor controls the speed and the imbalances, reduces noise, vibrations and component fatigue.		
1.9	· Hot and cold water mixer that achieves a highly precise temperature $\pm 1^{\circ}\text{C}$ precision with the programmed water level, saving energy and reducing the wash cycle time.		
1.10.	· Double safety system that checks that the door is closed and locked before starting the wash, minimizing the risk of accidents.		
1.11	· Automatically adjusts water consumption and chemicals proportionally, according to the program, kind of linen and the weight of the load		
1.12	· The machine control system must be ready to deal with delicate fabrics and the most sophisticated processes for Wet Cleaning processes		
1.13	<b>Technical specifications:</b>		
1.14	· Capacity/Load: As per design 56-60 kg		
1.15	· Extraction: 800 rpm (Approx.)		
1.16	· Drum Volume: 550-600 mm		
1.17	· G- Factor: 370 or above		
1.18	· Wash Speed: 13-36 (variable)		
1.19	· Distribution speed: 72 rpm or more.		
1.20	· Pneumatic / Electronic drain valve		
1.21	· Cycle Time: Max. 45 to 60 min.		
1.22	· Frequency controlled motor drive system		
2.0	<b>Drying Tumbler (Electric)</b>		
2.1	· Drying Tumbler with Electric heating,		

2.2	· Fully automatic Microprocessor control with 50 or more programs with parameters adjustment temperature, time, spin Speed etc.		
2.3	· The Machine display must show all times, informing the user of time left, the function and the temperature etc.		
2.4	· Having stainless steel drum with a radial and an axial airflow & Reversing drum.		
2.5	· Durable drum structure and supporting bracket.		
2.6	· The drum should be on a shaft with bearings rather wheels.		
2.7	· The double glass and double panel door system.		
2.8	· The fan with curved blades for ventilation of air or better technology.		
2.9	· The residual moisture control system to prevent the linen from over drying and shortens the cycle time. The machine must have safety with the cool down system & automatic fire suppression system.		
2.10.	· The unit must has anti-wrinkle feature.		
2.11	· The tumbler to be factory painted with enameled paint.		
2.12	<b>Technical Specifications:</b>		
2.13	· Capacity of drying tumbler: 33-35 kg		
2.14	· Drum Volume: 660-700 L or more		
2.15	· Cycle Time: 25-27 min or less		
3.0	<b>3. Flat Work Dryer Ironer</b>		
3.1	· Flat Work Dryer Ironer shall be Electric heated, cylindrical type.		
3.2	· Having single roller/cylinder.		

3.3	· The roller made of machined steel with mirror polishing and chrome plating.		
3.4	· Automatic speed adjustment, the ironing speed depending on the type of linen and the degree of dampness.		
3.5	· Finger guard protection with a double sensor monitors the active and rest position with an initial check at each start-up.		
3.6	· Front loading and Front return.		
3.7	<b>Technical Specifications:</b>		
3.8	· Speed: 1-9 m/ min (variable speed)		
3.9	· Drive: gear motor-inverter assembly		
3.10.	· Feeding: Through Belts		
3.11	· Opti Feed: The control display and the LED indicate the feeding area with the highest temperature in real-time.		
3.12	· Lint filter		
3.13	· Cylinder Dia: 450-500 mm		
3.14	· Working Width: 2,500 to 3,000 mm		
3.15	· The Dryer Ironer to be a compact free standing self-contained		
4.0	<b>4. Utility Press</b>		
4.1.	· Utility Press for uniforms pneumatically controlled high temperature stainless steel polished head.		
4.2	· Adjustable pressure for pressing different fabrics achieves an excellent finish.		
4.3	· Air operated reduces operator fatigue and allows high production output.		
4.4	· Two bottom closing improves operator safety.		

4.5	· High quality padding and cover for buck reduces impressions.		
<b>5.0</b>	<b>Sewing Machine</b>		
5.1.	· Single needle,		
5.2.	· Two thread unit, Electric .		
5.3.	· Self-lubricating system with oil cooling.		
5.4.	· Oil level and speed controller.		
<b>6.0</b>	<b>6. Hand Ironer with table</b>		
6.1.	· Heavy duty Ironer Electric operated with stand cum table with vacuum fan to hold fabrics.		
<b>7.0</b>	<b>7. Air Compressor (Imported)</b>		
7.1.	· Suitable capacity with air tank as per requirement of the laundry unit on full load.		
<b>8.0</b>	<b>8. Weighing Scale (Imported)</b>		
8.1.	· Electric Weighing Scale with weighing Capacity 300Kgs/50 Gms or better.		
8.2	· Platform about 1m2 with side ramps to move trolley on it.		
8.3	· Wall mounted bright lit display for distance readability		
8.4	· Digital display with pre-set tares for instant deduction of known container weights.		
<b>9.0</b>	<b>9. Packing / Sorting Table (Local)</b>		

<b>9.1</b>	· Packing / Sorting Table.		
<b>9.2</b>	· Stainless steel table top.		
<b>9.3</b>	· Dim. Approx. 1500 x 650 x 850mm or better		
<b>10.0</b>	<b>10. Linen Storage Racks (Local)</b>		
<b>10.1</b>	· Storage Racks shelving unit comprising 4 shelves.		
<b>10.2</b>	· Stainless steel construction.		
<b>10.3</b>	· Approx. size Height 1800mm, Width of shelf 1400mm, Depth of shelf 500mm.		
<b>11.0</b>	<b>11. Dirty / Clean Trolley (Local)</b>		
<b>11.1</b>	· Aluminum/SS construction.		
<b>11.2</b>	· Separate area for Clean and dirty Linen, large size.		
<b>11.3</b>	· Clean area with shelves and door.		
<b>11.4</b>	· Four Wheel 150mm size.		
<b>11.5</b>	· Dim. Approx. 1000 x 690 x 1200 mm (Approx.)		
<b>12.0</b>	<b>Working Trolley (Dirty/Clean Area) (Local)</b>		
<b>12.1</b>	· Aluminum / SS construction. $\frac{3}{4}$ shelves.		
<b>12.2</b>	· Three/Four Wheels, size with drain trap at bottom.		
<b>12.3</b>	· Dim. Approx. W 1030 X D 530 X H 770 mm (Approx.)		
<b>13.0</b>	<b>13. Water Treatment Unit</b>		
<b>13.1</b>	· Water treatment unit have to supply the treated water for laundry equipment.		
<b>13.2</b>	· Water treatments made of <b>USA, Europe or Japanese</b> components; assembled & provided locally.		
<b>13.3</b>	· The capacity and flow should be as per equipment requirement of laundry.		

**03: LOT-IT EQUIPMENT (MULTIPLE LOTS)****THE FOLLOWING CRITERIA WAS FINALIZED BY THE COMMITTEE AND TECHNICAL EXPERTS FOR IT EQUIPMENT.**

<b>Technical Evaluation Criteria</b>			
		<b>Mandatory Requirements</b>	
	1	Verified FBR last three years Income tax returns	<b>Mandatory</b>
	2	Verified Sales tax returns last 01 year	<b>Mandatory</b>
	3	SECP current active registration	<b>Mandatory</b>
	4	KPRA	<b>If applicable</b>
	5	PNRA	<b>If applicable</b>
	6	Active tax payer list verifiable from FBR online portal	<b>Mandatory</b>
	7	Fully functional Office without biomedical workshop at Peshawar alone.	<b>Mandatory</b>
	8	The PEC Registration of the firm shall be mandatory.	<b>Mandatory</b>
	9	Lowest Bid Certificate (as per format with the BSDs)	<b>Mandatory</b>
	10	Comprehensive Warranty as mentioned with the specifications of IT Equipment, replacement with a brand new on next working day shall be provided as mandatory.	<b>Mandatory</b>
<p><b>NOTE: Every bidder can score once in every criteria not exceeding the maximum allocated marks. If a bidder scores zero marks in any of the listed criteria except the mandatory criteria, he will not lose his rights for participation in the bidding process.</b></p>			

**The following criteria was finalized by the Committee and Technical Experts for IT EQUIPMENT.**

	<p><b>Submission of any false, bogus, fake, forged, fabricated, or tampered document, found at any time during or after successful bidding shall result in disqualification of the bidder from the bidding process. Furthermore, the concerned authorities shall initiate appropriate legal and administrative actions, including a minimum penalty of three (03) years blacklisting and forfeiture of the bid security.</b></p>
	<p><b>Lot wise items shall be quoted as mandatory.</b></p>
	<p><b>TECHNICAL EVALUATION CRITERIA FOR INFORMATION TECHNOLOGY</b></p>

<b>EQUIPMENT/ITEMS FOR FY 2026-27</b>			
<b>S. No.</b>	<b>Description of Variables</b>	<b>MARKS Breakup</b>	<b>Maximum Marks allocated</b>
<b>A</b>	<b>Product Evaluation Parameters</b>		
1	Name of equipment		
<b>2</b>	<b>Conformance to the specification</b>		
<b>2.1</b>	Fully compliance with the required specifications as per Statement of Requirement. Minor deviations may be accommodated up to 04, subject to the condition that main function and performance in any aspect would not be affected. More than 04 minor deviations will be considered as major deviation and the bidder will be considered as non-responsive for the quoted item.	<b>Mandatory</b>	
<b>3</b>	<b>Manufacturer Performance</b>		<b>18</b>
<b>3.1</b>	Valid ISO 9001 Quality Management System certificate from Pakistan National Accreditation Council (PNAC) accredited bodies or from International Accreditation Forum (IAF) Accredited Bodies.	<b>06</b>	
<b>3.2</b>	Valid ISO 14001 Environmental certificate from Pakistan National Accreditation Council (PNAC) accredited bodies or from International Accreditation Forum (IAF) Accredited Bodies.	<b>06</b>	
<b>3.3</b>	Valid ISO 45001 Occupational Health & Safety Certificate from Pakistan National Accreditation Council (PNAC) accredited bodies or from International Accreditation Forum (IAF) Accredited Bodies.	<b>06</b>	
<b>4</b>	<b>After Sale Past Performance</b>		<b>20</b>
<b>4.1</b>	Four marks for each satisfactory performance certificate (objectively verifiable) of the firm / bidder on letterhead or signed and stamped by Principal Accounting Officer on behalf of the public institution / department for the quoted item supported by Supply order/Purchase order. A machine should be in active service for at-least last 02 years or more. (03 Certificates)	<b>12</b>	
<b>4.2</b>	Two mark for each satisfactory performance certificate (objectively verifiable) of the firm / bidder on letterhead signed and stamped by Principal Accounting Officer on behalf of private institution / department for the quoted item supported by Supply order/Purchase order. (Institution/department must be registered with SECP). A machine should be in active service for at-least last 02 years or more. (04 Certificates)	<b>08</b>	

<b>5</b>	<b>Warranty</b>		
<b>5.1</b>	Warranty Period as mentioned in the technical specifications.	<b>Mandatory</b>	
<b>6</b>	The bidder will have to give valid proof of being manufacturer / importer / authorized agent in the form of objectively verifiable supporting documents.	<b>Mandatory</b>	
<b>7</b>	<b>Firm / Bidder Financial Strength / Certificate The marks will be allocated according to the last three years Audited Balance Sheet Duly attested by registered Chartered Accounting firm.</b>		
<b>7.1</b>	PKR 801 million and above	<b>20</b>	<b>20</b>
<b>7.2</b>	PKR 701-800 Million	<b>15</b>	
<b>7.3</b>	PKR 501-700 Million	<b>12</b>	
<b>7.4</b>	PKR 400-500 Million	<b>10</b>	
<b>8</b>	<b>Human Resources/Technical Staff</b>		<b>18</b>
<b>8.1</b>	Graduate Engineer with PEC Registration in electrical / electronics, / mechatronics / mechanical / industrial or equivalent. PEC registration card of the engineer must be submitted. (04 marks for each). all qualification along with CV must be provided and may be verified. The credentials should be verifiable through possible means including but not limited to company organogram, payrolls, bank statements of minimum 01-year etc.	<b>12</b>	
<b>8.2</b>	Diploma of Associate Engineer (DAE) in electrical / electronic / mechatronics or relevant field. DAE certificate must be submitted. (Two marks for each certificate) all qualification along with CV must be provided and may be verified. The credentials should be verifiable through possible means including but not limited to company organogram, payrolls, bank statements of minimum 01 year etc.	<b>06</b>	
<b>9</b>	<b>Office / Workshop facility</b>		<b>14</b>
<b>9.1</b>	Fully functional Office without support services workshop at Peshawar alone is mandatory.	<b>Mandatory</b>	
<b>9.2</b>	Fully functional Office along with well-equipped support services workshop (verifiable through estate agreements and physical verification if so desired) at Islamabad, Lahore, Karachi and Peshawar.	<b>14</b>	
<b>9.3</b>	Fully functional Office along with well-equipped support services workshop (verifiable through estate agreements and physical verification if so desired) at Islamabad, Lahore and Peshawar.	<b>12</b>	

<b>9.4</b>	Fully functional Office along with well-equipped support services workshop (verifiable through estate agreements and physical verification if so desired) at Islamabad and Peshawar.	<b>10</b>	
<b>10</b>	<b>List Major Components/parts of the Inventory</b> readily available in the warehouse anywhere in Pakistan. The list of such spare parts duly verifiable through import documents and/or local warehouse logs shall be provided. Details shall be submitted with technical bid.	<b>10</b>	<b>10</b>
	<b>Total Score of the Firm / Bidder Evaluation Parameters</b>		<b>100</b>

Passing Marks shall be 70 out of 100. Technical Evaluation weight-age shall be 70% and financial weight-age shall be 30% in single stage two envelope procedures (KPPRA Rule 6 2 b) and according to KPPRA ACT 2 c i. (best evaluated bid).

Then financial bids shall be evaluated according to the formula as under (70/30%)

Lowest Cost Offered

x 100 x 0.30

Price Offered by the Firm to be Evaluated

<b><u>MAKE:</u></b>		<b>MANDATORY TO QUOTE FOR EACH LOT</b>
<b><u>MODEL:</u></b>		
<b><u>COUNTRY OF ORIGIN &amp; MANUFACTURE:</u></b>		

<b>LOT No. 1</b>				
<b>ITEM NAME WITH MTI-HMC REQUIRED SPECIFICATIONS</b>				
<b>S.No</b>	<b>Item Name</b>	<b>Specification</b>	<b>FIRM QUOTED SPECIFICATIONS</b>	<b>Reference/Annexure/Page No.</b>
<b>1.1</b>	<b>PACS Server</b>	<ul style="list-style-type: none"> <li><b>Processor:</b> Dual (2x) Intel Xeon Scalable Gold 5th or 4th Generation processors (e.g., 5416S or 6430) for high compute performance during imaging retrieval.</li> </ul>		

		<ul style="list-style-type: none"> <li>• <b>Memory (RAM):</b> 1TB DDR5 4800MT/s or 5600MT/s ECC Registered DIMMs (e.g., 16 x 64GB or 32 x 32GB) to manage large image data caching.</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Chipset:</b> Intel® Compatible (Skylake/Cascade Lake W).</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Memory</b> 32 DDR5 DIMM slots, supports RDIMM 8 TB max, speeds up to 4800 MT/s</li> </ul>		
		<b>Usable Storage (100TB):</b>		
		<ul style="list-style-type: none"> <li>• OS/Apps: 2 x 480GB or 960GB SSD (SATA/NVMe) in RAID 1.</li> </ul>		
		<ul style="list-style-type: none"> <li>• Data (PACS Archive): 12 x 12TB or 8 x 16TB 3.5" 7.2K RPM SATA/SAS Enterprise HDD (configured in RAID 6 or RAID 10 for high capacity and fault tolerance)</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Storage Controller:</b> PERC H755 or H760 Adapter (SAS/SATA/NVMe).</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Networking:</b> Dual-port 10GbE or 25GbE OCP NIC 3.0.</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Management:</b> iDRAC9 Enterprise 16G.</li> </ul>		
		<b>Power Supply:</b> Dual, Hot-plug, Fully Redundant 1100W or 1600W Titanium Mixed		
		<b>Installation &amp; Commissioning:</b> Supply, installation, configuration, testing, and commissioning of Server solution including full integration with existing IT infrastructure.		
		<b>Warranty:</b> Minimum 36 months (3 years) Next Business Day (NBD) onsite comprehensive warranty, covering parts, labor, and support.		
1.2	<b>Branded Rack Server</b>	<ul style="list-style-type: none"> <li>• <b>Processor</b> Up to two 4th Generation Intel Xeon Scalable processor with up to 56 cores per processor and with optional Intel® QuickAssist Technology</li> </ul>		

		<ul style="list-style-type: none"> <li>• <b>Chipset:</b> Compatible with 4th/5th Gen Intel Xeon Scalable platform (Eagle Stream)</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Memory:</b> Up to 32 DIMM slots, DDR5 RDIMM, supporting up to 8 TB (subject to DIMM capacity), speeds up to 4800 MT/s</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Storage: Front Bay</b> Up to 24 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 368.64 TB</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Rear Bay:</b> Up to 4 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 61.44 TB</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Power Supplies:</b> 1100watt hot swap redundant</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Fans:</b> <ul style="list-style-type: none"> <li>• Standard (STD) fans/High performance Silver (HPR) fans/ High performance Gold (VHP) fans</li> <li>• Up to 6 hot plug fans</li> </ul> </li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>NIC Adapter:</b> Integrated Gigabit Ethernet</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Operating System:</b> Canonical Ubuntu Server LTS • Microsoft Windows Server with Hyper-V • Red Hat Enterprise Linux • SUSE Linux Enterprise Server • VMware ESXi Microsoft OS</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Embedded Management:</b> iDRAC9 • iDRAC Direct • iDRAC RESTful API with Redfish • iDRAC Service Module • Quick Sync 2 wireless module</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Embedded NIC:</b> 2 x 1 GbE LOM card (optional)</li> </ul>		
		<ul style="list-style-type: none"> <li>• Network options: 1 x OCP card 3.0 (optional)</li> </ul> <p>Note: The system allows either LOM card or an OCP card or both to be installed in the system.</p>		
		<ul style="list-style-type: none"> <li>• <b>GPU Options:</b> Up to 2 x 350 W DW and 6 x 75 W SW</li> </ul>		

		<ul style="list-style-type: none"> <li>• <b>Ports:</b>Front Ports • 1 x iDRAC Direct (Micro-AB USB) port • 1 x USB 2.0 • 1 x VGA <b>Rear:</b>1 x Dedicated iDRAC Ethernet port • 1 x USB 2.0 • 1 x USB 3.0 • 1 x VGA • 1 x Serial (optional) • 1 x VGA (optional for Direct Liquid Cooling configuration)</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>PCIe:</b>Up to eight PCIe slots:</li> </ul>		
		<ul style="list-style-type: none"> <li>• Slot 1: 1 x8 Gen5 or 1 x8/1 x16 Gen4 Full height, Half length or 1 x16 Gen4 Full height, Full length</li> </ul>		
		<ul style="list-style-type: none"> <li>• Slot 2: 1 x8/1 x16 Gen5 or 1 x8 Gen4 Full height, Half length or 1 x16 Gen5 Full height, Full length</li> </ul>		
		<ul style="list-style-type: none"> <li>• Slot 3: 1 x16 Gen4 Low profile, Half length</li> </ul>		
		<ul style="list-style-type: none"> <li>• Slot 4: 1 x8 Gen4 Full height, Half length</li> </ul>		
		<ul style="list-style-type: none"> <li>• Slot 5: 1 x8/1 x16 Gen4 Full height, Half length or 1 x16 Gen4 Full height, Full length</li> </ul>		
		<ul style="list-style-type: none"> <li>• Slot 6: 1 x16 Gen4 Low profile, Half length • Slot 7: 1 x8/1 x16 Gen5 or 1 x8 Gen4 Full height, Half length</li> </ul>		
		<ul style="list-style-type: none"> <li>• Slot 7 SNAPI: 1 x16 Gen5 Full height, Half length • Slot 8: 1 x8 Gen5 or 1 x8 Gen4 Full height, Half length</li> </ul>		
		<p><b>Installation &amp; Commissioning:</b> Supply, installation, configuration, testing, and commissioning of Server solution including full integration with existing IT infrastructure.</p>		
		<p><b>Warranty:</b> Minimum 36 months (3 years) Next Business Day (NBD) onsite comprehensive warranty, covering parts, labor, and support.</p>		
<b>1.3</b>	<b>Blade Server</b>	<p><b>Form Factor :</b>Half/Full-height Blade Server compatible with enterprise chassis (8–16 blades per chassis)</p>		

		<b>Processor (CPU)</b>		
		Up to 2 × Intel Xeon 6th Gen Scalable or AMD EPYC 9004/5th Gen		
		<b>CPU Cores</b>		
		Up to 86 cores (Intel) or 160 cores (AMD) per CPU		
		<b>Chipset</b>		
		Latest server-class chipset (Intel C741 / AMD equivalent)		
		<b>Memory Type</b>		
		DDR5 ECC Registered (RDIMM / LRDIMM / MRDIMM support)		
		<b>Memory Slots</b>		
		Up to 24–32 DIMM slots		
		<b>Maximum RAM</b>		
		Up to 3 TB DDR5 RAM per blade (Blades Made Simple)		
		<b>Memory Speed</b>		
		Up to 6400–8000 MT/s (DDR5 / MRDIMM)		
		<b>Persistent Memory</b>		
		Optional NVDIMM / PMEM (up to ~192 GB)		
		<b>Internal Storage Type</b>		
		NVMe (PCIe Gen4/Gen5), SAS, SATA (hybrid support)		
		<b>Drive Bays (Max)</b>		
		Up to 8–9 × EDSFF NVMe (E3.S) OR 6 × 2.5" SSD/HDD		
		<b>Maximum Internal Storage</b>		

		Up to 90 TB+ per blade (NVMe/SAS mix)		
		<b>NVMe Support</b>		
		PCIe Gen4 / Gen5 NVMe (EDSFF E1.S / E3.S)		
		<b>Boot Drives</b>		
		Dual M.2 SSD (RAID 1, 480GB/960GB)		
		<b>RAID Controller</b>		
		Hardware RAID (0,1,5,10) with cache + HBA support		
		<b>External Storage Support</b>		
		SAN (16/32Gb Fibre Channel), iSCSI, NAS		
		<b>Networking</b>		
		Up to 100–200 Gb Ethernet / Fabric Interconnect		
		<b>Expansion Slots</b>		
		2–3 Mezzanine / PCIe Gen5 expansion slots		
		<b>GPU Support</b>		
		Optional (2–4 GPUs via mezzanine / PCIe node)		
		<b>Management</b>		
		Dedicated remote management (iLO / iDRAC / CIMC equivalent)		
		<b>Power Supply</b>		
		Shared chassis redundant PSU (up to 3000W modules)		
		<b>Cooling</b>		
		Shared high-efficiency redundant fans (chassis-based)		

		<b>Security</b>		
		TPM 2.0, Secure Boot, Silicon Root of Trust		
		<b>Virtualization Support</b>		
		VMware ESXi, Hyper-V, KVM		
		<b>Operating Systems</b>		
		Windows Server, Linux (RHEL, Ubuntu, SUSE)		
		<b>Compliance</b>		
		Energy Star, CE, FCC certified		
		<b>Installation &amp; Commissioning:</b> Supply, installation, configuration, testing, and commissioning of Server solution including full integration with existing IT infrastructure.		
		<b>Warranty:</b> Minimum 03-year comprehensive onsite warranty (parts, labor, and 24/7 technical support)		
<b>1.4</b>	<b>International Branded 42U Rack for Server Dell / HP / IBM or Equivalent</b>	<b>42U Rack</b>		
		Standard Airflow		
		Front Door with Lock		
		Wheels with Lock		
		KVM Console switch along with minimum 8 adaptors		
		Redundant 32A PDUs		
		1U Universal Filler Panel		
		LCD, keyboard mouse		
		<b>Warranty:</b> Minimum 03-year comprehensive onsite warranty (parts, labor, and 24/7 technical support)		

LOT No. 2					
SNO	Item	Specification			
2.1	<b>Branded All-in-One PC with Intel Core i5 Processor. HP, Dell or equivalent</b>	<b>Processor</b> 13 <sup>th</sup> Generation or above Intel® Core™ i5-1335U-13400 (10 Cores,Thread:12 12MB, 4.6GHZ) or Higher			
		<b>Memory</b> 16GB (2x 8GB) DDR4			
		<b>Hard Drive</b> M.2 512GB PCIe NVMe M.2 SSD			
		<b>Optical Drive</b> Internal or external CD/DVD Drive (R/W)			
		<b>Graphics</b> Integrated Intel® UHD Graphics 770 or Higher			
		<b>Audio</b> Integrated Stereo speakers with Waves MaxxAudio® Pro, 2 W x 2 = 4 W total or Higher			
		<b>Ethernet Adapter</b> Integrated Gigabit Ethernet Adapter or Higher			
		<b>Wireless LAN</b> Integrated Realtek WiFi-5 2x2 8822CE Bluetooth 5.0 Wireless Card or Higher			
		<b>Ports</b> 1 USB 3.2 Gen 2x1 Type-C® port ; 1 USB 3.2 Gen 2 port ; 1 Universal audio port ; 1 SD-card slot or Higher ; 1 RJ-45 Ethernet port ; 2 USB 3.2 Gen 2 ports ; 2 USB 2.0 ports with Smart Power On ; 1 Line-out audio port			
		<b>Display</b> 23.8-inch, FHD 1920 x 1080, 60 Hz, anti-glare, non-touch, 72% NTSC, 250 nits, wide-viewing angle, WLED or Higher			
		<b>Power Supply</b> 80 PLUS internal Power Supply Unit (PSU) or Lower			
	<b>Stand</b> Height Adjustable Stand or Higher				

		<b>Keyboard</b> USB Wired Keyboard or Higher		
		<b>Mouse</b> USB Wired Optical Mouse or Higher		
		<b>Warranty</b> Three-year Warranty		
2.2	<b>Branded All-in-One PC with Intel Core i7 Processor HP, Dell or equivalent</b>	<b>Processor</b> 13th Generation or above Intel® Core™ i7-1355U (10 Cores, 12MB,12 Threads )		
		<b>Processor:5.0 GHZ</b>		
		<b>Memory 16GB (2x 8GB) DDR4-3200MHZ</b>		
		<b>Hard Drive</b> M.2 512GB PCIe NVMeM.2SSD		
		<b>Optical Drive</b> Internal or external CD/DVD Drive (R/W)		
		<b>Graphics</b> Integrated Intel® UHD Graphics 770 or Higher		
		<b>Audio</b> Integrated Stereo speakers with Waves MaxxAudio® Pro, 2 W x 2 = 4 W total or Higher		
		<b>Ethernet Adapter</b> Integrated Gigabit Ethernet Adapter or Higher		
		<b>Wireless LAN</b> Integrated Realtek , Realtek RTL8852BE Wi-Fi 6 (2x2) and Bluetooth® 5.3 Wireless Card		
		<b>Ports</b> 1 USB 3.2 Gen 2x1 Type-C® port ; 1 USB 3.2 Gen 2 port ; 1 Universal audio port ; 1 SD-card slot or Higher ; 1 RJ-45 Ethernet port ; 2 USB 3.2 Gen 2 ports ; 2 USB 2.0 ports with Smart Power On ; 1 Line-out audio		
<b>Display</b> 23.8-inch, FHD 1920 x 1080, 60 Hz, anti-glare, non-touch, 72% NTSC, 250 nits, wide-viewing angle, WLED or Higher				
<b>Power Supply</b> :90 W Smart AC Power Adapter				

		<b>Stand</b> Height Adjustable Stand or Higher		
		<b>Keyboard</b> USB Wired Keyboard or Higher		
		<b>Mouse</b> USB Wired Optical Mouse or Higher		
		<b>Warranty</b> Three-year Warranty		
<b>2.3</b>	<b>Desktop Computers (Branded) HP, Dell or Equivalent</b>	<b>Core i5 13<sup>th</sup> Generation or above</b>		
		<b>Processor:</b> Latest Series Intel® Core™ i5-13400(13 <sup>th</sup> Gen) Processor, Cores: 10, Threads: 16 Processor Base Frequency: 4.6GHz, Max Turbo. Cache: 18 MB Smart Cache		
		<b>Ports:</b> Graphics Output Options: HDMI,D Port, VGA Port		
		7.1 CH HD Audio (Realtek ALC892 Audio Codec), ELNA Audio Caps, 6 SATA3, 2 Ultra M.2 (PCIe Gen3 x4 & SATA3)		
		2 USB 3.1 Gen2 (Rear Type-A+C), 6 USB 3.1 Gen1 (4 Front, 2 Rear), Intel® Gigabit LAN, Wifi+Bluetooth on board.		
		<b>RAM:</b> 8+8= (16GB) DDR-4(2*8)-3200MHZ		
		<b>Hard Disk Drive:</b> Drive 2TB Hard Disk Drive SATA		
		<b>Optical Drive:</b> DVD R/W		
		<b>Accessories:</b> USB Keyboard standard, USB Optical Mouse, Mouse Pad,		
		<b>Display:</b> 19.5" LED with VGA, Power Cable		
		<b>Operating System:</b> Window 11		
		<b>Mandatory Note:</b>		
		· Refurbished, Grey smuggled or international warranty products will be not accepted in any case.		

		· HMC will verify the serial numbers of the supplied items with its manufacturer. If found ambiguous, will be returned to the supplier at his own cost.		
		· Manufacturer's Authorization Letter will be provided by the bidder in favor of HMC.		
		<b>Brand Warranty:</b> 03 Yrs Local warranty on site+ service manual.		
		Quoted product must have at least one manufactures parts depot in Pakistan.		
<b>2.4</b>	<b>Desktop Computers (Branded) HP, Dell or Equivalent</b>	<b>Core i7 13<sup>th</sup> Generation or above</b>		
		<b>Processor:</b> Intel® Core™ i7-13700 Processor:5.4GHZ, Cores: 16 Threads:24.Cache Memory:25MB		
		Chipset: Intel H670		
		<b>Ports:</b> Graphics Output Options: HDMI, D Port, VGA Port,		
		7.1 CH HD Audio (Realtek ALC892 Audio Codec), ELNA Audio Caps, 6 SATA3, 2 Ultra M.2 (PCIe Gen3 x4 & SATA3)		
		2 USB 3.1 Gen2 (Rear Type-A+C), 6 USB 3.1 Gen1 (4 Front, 2 Rear), Intel® Gigabit LAN,Wifi,		
		<b>RAM:</b> 8+8= (16GB) DDR-4		
		<b>Hard Disk Drive:</b> Drive 2TB Hard Disk Drive SATA		
		<b>Optical Drive:</b> DVD R/W		
		<b>Accessories:</b> USB Keyboard standard, USB Optical Mouse, Mouse Pad,		
		<b>Display:</b> 19.5" LED with VGA, Power Cable		

		<b>Operating System:</b> Window 11		
		<b>Brand Warranty:</b> 3 Years Local warranty on site + service manual		
		<b>Mandatory Note:</b>		
		· Refurbished, Grey smuggled or international warranty products will be not accepted in any case.		
		· HMC will verify the serial numbers of the supplied items with its manufacturer. If found ambiguous, will be returned to the supplier at his own cost.		
		· Manufacturer's Authorization Letter will be provided by the bidder in favor of HMC.		
		<b>Brand Warranty:</b> 03 Years Local warranty on site + service manual		
		Quoted product must have at least one manufactures parts depot in Pakistan.		
<b>2.5</b>	<b>Laptop (Branded) , Dell, HP or equivalent</b>	<b>Laptop Core i5 13<sup>th</sup> Generation or Above</b>		
		Processor: Intel® Core™ i5-1334U Raptor Lake Processor, Cores:10, Threads:12, , Max Turbo Frequency: 4.20 GHz, Cache: 12 MB Smart Cache		
		LCD Screen Size 15.6 inch		
		Key Paid with Lights		
		<b>RAM:</b> 8+8 (16GB) DDR-4		
		<b>SSD Drive:</b> 512GB		
		<b>Display:</b>		
		· 15.6-inch LCD		
		· <b>Touchscreen enabled (multi-touch support)</b>		

		<b>Operating System:</b> window11		
		<b>Communication:</b> HDMI Port 1 No's, USB 2.0 Port 1 No's, USB 3.0 Port 2 No's, RJ 45 LAN Jack, Head Phone –In Jack, Microphone –Out Jack, Card Reader, Wi-Fi & Bluetooth, Front Camera		
		Built Speaker		
		Mouse Paid with Left and Right Buttons		
		Warranty: 03 Yrs Warranty		
<b>2.6</b>	<b>Laptop (Branded) Dell, HP or equivalent</b>	<b>Laptop Core i7 13<sup>th</sup> Generation or Above</b>		
		Processor: Intel® Core™ i7 1355U Raptor Lake Processor up to 5.2 GHZ, Cores:10, Threads:12, Cache: 12 MB Smart Cache		
		LCD Screen Size 15.6 inch		
		Key Paid with Lights		
		<b>RAM:</b> 8+8=16GB DDR4(3200MHZ)		
		<b>SSD:</b> 512GB M.2NVMe		
		<b>Display:</b>		
		· 15.6-inch LCD		
		· <b>Touchscreen enabled (multi-touch support)</b>		
			<b>Operating System:</b> window11	
		<b>Communication:</b> HDMI Port 1 No's, USB 2.0 Port 1 No's, USB 3.0 Port 2 No's, RJ 45 LAN Jack, Head Phone –In Jack, Microphone –Out Jack, Card Reader, Wi-Fi & Bluetooth, Front Camera		
		Built Speaker		

		Mouse Paid with Left and Right Buttons		
		Warranty: 03 Years Local Warranty on site		
<b>2.7</b>	<b>Laptop Trolley</b>	1. Height adjustment mobile computer cart		
		2. Cable Management		
		3. Seating standing position		
		4. With socket outlet storage box		
		5. With CPU holder/ Printer Shelf		
		6. Max Capacity:60kg		
		7. Product size 650L *500W*1070H mm		
		8. Material: Aluminum+Metal+MDF		
			Warranty: 03 Years Local Warranty on site	

<b>2.8</b>	<b>Tablet (iPad or equivalent) – Technical Specifications - Multiple Versions</b>			
		<u><b>2.8.a</b></u>		
<b>S.No</b>	<b>Specification</b>	<b>iPad (10th Generation) or equivalent</b>		
1	<b>Display Size</b>	10.9" Liquid Retina		
2	<b>Resolution</b>	2360 × 1640		
3	<b>Processor</b>	A14 Bionic		
4	<b>RAM</b>	4 GB		
5	<b>Storage Options</b>	64GB / 256GB		
6	<b>Rear Camera</b>	12 MP		
7	<b>Front</b>	12 MP (Ultra Wide)		

	<b>Camera</b>			
8	<b>Battery Life</b>	Up to 10 hours		
9	<b>Charging Port</b>	USB-C		
10	<b>Connectivity</b>	Wi-Fi / Optional 5G		
11	<b>Apple Pencil Support</b>	1st Gen (USB-C adapter)		
12	<b>Keyboard Support</b>	Folio Keyboard		
13	<b>Security</b>	Touch ID		
14	<b>Operating System</b>	iPadOS (latest supported)		
15	<b>Weight</b>	~477 g		
16	<b>Use Case</b>	Education, Office		
<b>Warranty:</b> Minimum 01-year international limited warranty with hardware repair/replacement support, extendable through authorized service providers.				
<b>2.8.</b>	<b>Tablet (iPad or equivalent) – Technical Specifications - Multiple Versions</b>			
	<b><u>2.8.b.</u></b>			
<b>S.No</b>	<b>Specification</b>	<b>iPad Mini (6th Generation) or equivalent</b>		
1	<b>Display Size</b>	8.3" Liquid Retina		
2	<b>Resolution</b>	2266 × 1488		
3	<b>Processor</b>	A15 Bionic		
4	<b>RAM</b>	4 GB		
5	<b>Storage Options</b>	64GB / 256GB		
6	<b>Rear Camera</b>	12 MP		

7	<b>Front Camera</b>	12 MP		
8	<b>Battery Life</b>	Up to 10 hours		
9	<b>Charging Port</b>	USB-C		
10	<b>Connectivity</b>	Wi-Fi / Optional 5G		
11	<b>Apple Pencil Support</b>	2nd Gen		
12	<b>Keyboard Support</b>	Bluetooth Keyboard		
13	<b>Security</b>	Touch ID		
14	<b>Operating System</b>	iPadOS		
15	<b>Weight</b>	~293 g		
16	<b>Use Case</b>	Mobility, Field Work		

**Warranty:** Minimum 01-year international limited warranty with hardware repair/replacement support, extendable through authorized service providers.

	<b><u>2.8.c</u></b>			
<b>S.No</b>	<b>Specification</b>	<b>iPad Air (5th Generation) or equivalent</b>		
1	<b>Display Size</b>	10.9" Liquid Retina		
2	<b>Resolution</b>	2360 × 1640		
3	<b>Processor</b>	Apple M1		
4	<b>RAM</b>	8 GB		
5	<b>Storage Options</b>	64GB / 256GB		
6	<b>Rear Camera</b>	12 MP		

7	<b>Front Camera</b>	12 MP		
8	<b>Battery Life</b>	Up to 10 hours		
9	<b>Charging Port</b>	USB-C		
10	<b>Connectivity</b>	Wi-Fi / Optional 5G		
11	<b>Apple Pencil Support</b>	2nd Gen		
12	<b>Keyboard Support</b>	Magic Keyboard		
13	<b>Security</b>	Touch ID		
14	<b>Operating System</b>	iPadOS		
15	<b>Weight</b>	~461 g		
16	<b>Use Case</b>	Professional Use		
	<b>Warranty:</b> Minimum 1-year international limited warranty with hardware repair/replacement support, extendable through authorized service providers.			
		<b><u>2.8.d</u></b>		
<b>S.No</b>	<b>Specification</b>	<b>iPad Pro 11-inch (4th Generation) or equivalent</b>		
1	<b>Display Size</b>	11" Liquid Retina		
2	<b>Resolution</b>	2388 × 1668		
3	<b>Processor</b>	Apple M2		
4	<b>RAM</b>	8–16 GB		
5	<b>Storage Options</b>	128GB–2TB		
6	<b>Rear Camera</b>	12 MP + 10 MP Ultra Wide		

7	<b>Front Camera</b>	12 MP TrueDepth		
8	<b>Battery Life</b>	Up to 10 hours		
9	<b>Charging Port</b>	USB-C (Thunderbolt)		
10	<b>Connectivity</b>	Wi-Fi 6E / Optional 5G		
11	<b>Apple Pencil Support</b>	2nd Gen		
12	<b>Keyboard Support</b>	Magic Keyboard		
13	<b>Security</b>	Face ID		
14	<b>Operating System</b>	iPadOS		
15	<b>Weight</b>	~466 g		
16	<b>Use Case</b>	High Performance		
<b>Warranty:</b> Minimum <b>1-year international limited warranty</b> with hardware repair/replacement support, extendable through authorized service providers.				
		<b><u>2.8.e</u></b>		
<b>S.No</b>	<b>Specification</b>	<b>iPad Pro 12.9-inch (6th Generation) or equivalent</b>		
1	<b>Display Size</b>	12.9" Liquid Retina XDR		
2	<b>Resolution</b>	2732 × 2048		
3	<b>Processor</b>	Apple M2		
4	<b>RAM</b>	8–16 GB		
5	<b>Storage Options</b>	128GB–2TB		
6	<b>Rear Camera</b>	12 MP + 10 MP Ultra Wide		
7	<b>Front Camera</b>	12 MP TrueDepth		

8	<b>Battery Life</b>	Up to 10 hours		
9	<b>Charging Port</b>	USB-C (Thunderbolt)		
10	<b>Connectivity</b>	Wi-Fi 6E / Optional 5G		
11	<b>Apple Pencil Support</b>	2nd Gen		
12	<b>Keyboard Support</b>	Magic Keyboard		
13	<b>Security</b>	Face ID		
14	<b>Operating System</b>	iPadOS		
15	<b>Weight</b>	~682 g		
16	<b>Use Case</b>	Design, Media, Enterprise		
<b>Warranty:</b> Minimum 1-year international limited warranty with hardware repair/replacement support, extendable through authorized service providers.				
<b>2.9.</b>	<b>MacBook or equivalent – Technical Specifications -Multiple Versions</b>			
		<b><u>2.9.a</u></b>		
<b>S.No</b>	<b>Specification</b>	<b>MacBook Air 13-inch (M2) or equivalent</b>		
1	<b>Display Size</b>	13.6" Liquid Retina		
2	<b>Resolution</b>	2560 × 1664		
3	<b>Processor (Chip)</b>	Apple M2		
4	<b>CPU Cores</b>	8-core		
5	<b>GPU Cores</b>	8–10 core		
6	<b>Neural Engine</b>	16-core		
7	<b>Memory</b>	8–24 GB Unified		

	<b>(RAM)</b>			
8	<b>Storage</b>	256GB – 2TB SSD		
9	<b>Battery Life</b>	Up to 18 hrs		
10	<b>Charging</b>	MagSafe 3 + USB-C		
11	<b>Ports</b>	2× USB-C		
12	<b>Connectivity</b>	Wi-Fi 6, Bluetooth 5.3		
13	<b>Camera</b>	1080p HD		
14	<b>Audio</b>	Stereo speakers		
15	<b>Security</b>	Touch ID		
16	<b>Operating System</b>	macOS (latest)		
17	<b>Weight</b>	~1.24 kg		
18	<b>Use Case</b>	Office		
<b>Warranty:</b> Minimum <b>1-year international limited warranty</b> with hardware repair/replacement support, extendable up to 3 years through authorized service providers.				
		<b><u>2.9.b</u></b>		
<b>S.No</b>	<b>Specification</b>	<b>MacBook Air 15-inch (M2) or equivalent</b>		
1	<b>Display Size</b>	15.3" Liquid Retina		
2	<b>Resolution</b>	2880 × 1864		
3	<b>Processor (Chip)</b>	Apple M2		
4	<b>CPU Cores</b>	8-core		
5	<b>GPU Cores</b>	10 core		
6	<b>Neural Engine</b>	16-core		
7	<b>Memory</b>	8–24 GB Unified		

	<b>(RAM)</b>			
8	<b>Storage</b>	256GB – 2TB SSD		
9	<b>Battery Life</b>	Up to 18 hrs		
10	<b>Charging</b>	MagSafe 3 + USB-C		
11	<b>Ports</b>	2× USB-C		
12	<b>Connectivity</b>	Wi-Fi 6, Bluetooth 5.3		
13	<b>Camera</b>	1080p HD		
14	<b>Audio</b>	6-speaker system		
15	<b>Security</b>	Touch ID		
16	<b>Operating System</b>	macOS		
17	<b>Weight</b>	~1.51 kg		
18	<b>Use Case</b>	Office / Business		
<b>Warranty:</b> Minimum <b>1-year international limited warranty</b> with hardware repair/replacement support, extendable up to 3 years through authorized service providers.				

		<b><u>2.9.c</u></b>		
<b>S.No</b>	<b>Specification</b>	<b>MacBook Pro 14-inch (M3) or equivalent</b>		
1	<b>Display Size</b>	14.2" Liquid Retina XDR		
2	<b>Resolution</b>	3024 × 1964		
3	<b>Processor (Chip)</b>	Apple M3		
4	<b>CPU Cores</b>	8–12 core		
5	<b>GPU Cores</b>	10–18 core		
6	<b>Neural Engine</b>	16-core		
7	<b>Memory</b>	8–24 GB		

	<b>(RAM)</b>			
8	<b>Storage</b>	512GB – 2TB SSD		
9	<b>Battery Life</b>	Up to 18 hrs		
10	<b>Charging</b>	MagSafe 3 + USB-C		
11	<b>Ports</b>	3× Thunderbolt 4, HDMI, SD		
12	<b>Connectivity</b>	Wi-Fi 6E, Bluetooth 5.3		
13	<b>Camera</b>	1080p HD		
14	<b>Audio</b>	6-speaker system		
15	<b>Security</b>	Touch ID		
16	<b>Operating System</b>	macOS		
17	<b>Weight</b>	~1.6 kg		
18	<b>Use Case</b>	Professional		
<b>Warranty:</b> Minimum <b>1-year international limited warranty</b> with hardware repair/replacement support, extendable up to 3 years through authorized service providers.				
		<b><u>2.9.d</u></b>		
<b>S.No</b>	<b>Specification</b>	<b>MacBook Pro 16-inch (M3 Pro) or equivalent</b>		
1	<b>Display Size</b>	16.2" Liquid Retina XDR		
2	<b>Resolution</b>	3456 × 2234		
3	<b>Processor (Chip)</b>	Apple M3 Pro		
4	<b>CPU Cores</b>	12–16 core		
5	<b>GPU Cores</b>	18–40 core		
6	<b>Neural Engine</b>	16-core		
7	<b>Memory (RAM)</b>	18–36 GB		

8	<b>Storage</b>	512GB – 4TB SSD		
9	<b>Battery Life</b>	Up to 22 hrs		
10	<b>Charging</b>	MagSafe 3 + USB-C		
11	<b>Ports</b>	3× Thunderbolt 4, HDMI, SD		
12	<b>Connectivity</b>	Wi-Fi 6E		
13	<b>Camera</b>	1080p HD		
14	<b>Audio</b>	6-speaker system		
15	<b>Security</b>	Touch ID		
16	<b>Operating System</b>	macOS		
17	<b>Weight</b>	~2.1 kg		
18	<b>Use Case</b>	Development / Enterprise		
<b>Warranty:</b> Minimum 1-year international limited warranty with hardware repair/replacement support, extendable up to 3 years through authorized service providers.				
		<u>2.9.e</u>		
<b>S.No</b>	<b>Specification</b>	<b>MacBook Pro 16-inch (M3 Max) or equivalent</b>		
1	<b>Display Size</b>	16.2" Liquid Retina XDR		
2	<b>Resolution</b>	3456 × 2234		
3	<b>Processor (Chip)</b>	Apple M3 Max		
4	<b>CPU Cores</b>	Up to 16 core		
5	<b>GPU Cores</b>	Up to 40 core		
6	<b>Neural Engine</b>	16-core		
7	<b>Memory (RAM)</b>	Up to 128 GB		

8	<b>Storage</b>	Up to 8TB SSD		
9	<b>Battery Life</b>	Up to 22 hrs		
10	<b>Charging</b>	MagSafe 3 + USB-C		
11	<b>Ports</b>	3× Thunderbolt 4, HDMI, SD		
12	<b>Connectivity</b>	Wi-Fi 6E		
13	<b>Camera</b>	1080p HD		
14	<b>Audio</b>	6-speaker system		
15	<b>Security</b>	Touch ID		
16	<b>Operating System</b>	macOS		
17	<b>Weight</b>	~2.1 kg		
18	<b>Use Case</b>	AI / High-End Workloads		
<b>Warranty:</b> Minimum <b>1-year international limited warranty</b> with hardware repair/replacement support, extendable up to 3 years through authorized service providers.				
<b>LOT No. 3</b>				
<b>S.N O</b>	<b>Item</b>	<b>Specification</b>		
3.1	<b>Laser Jet (Heavy Duty Printer)</b>	· Print Speed: UP to 61PPM or better		
		· Print Resolution :1200*1200DPI or higher		
		· Print Technology: Laser		
		· Memory: Standard: 2GB		
		· Processor Speed:750MHz or higher		
		· Standard Interface: HI Speed USB 2.0 port, built in Fast Ethernet		
		· Duty Cycle:250,000Pages		
		· Paper Handling:550 sheet by pass 100 sheet		

		· Duplex: standard Automatic		
		· Toner availability in market		
		· Spare Parts availability in market		
		· <b>Warranty:</b> One Year Warranty on site		
3.2	<b>Laser Jet (Medium Duty Printer)</b>	· Print Speed:43PPM, FPOT:5.7sec		
		· Print Resolutoin:1200*1200DPI		
		· Print Technology: Laser		
		· Memory: Standerd:min:1GB or higher		
		· Processor Speed:1200MB		
		· Standard Interface:1 Hi Speed USB 2.0, Host USB, Ethernet		
		· Display:5-line LCD		
		· Duplex: Standard, Wireless		
		· Duty cycle:125,000 Pages		
		· Paper Handling:100-Sheet multipurpose Tray1 550 Sheet		
		· <b>Warranty:</b> One Year Warranty on site		
		· Spare Parts availability in market		
		· Toner availability in market.		
3.3	<b>Laser Jet (Light duty Printer)</b>	· Print Speed:40 PPM,A4		
		· Print Resolution:1200*1200 DPI		
		· Standard Tray:250 Sheets or higher		
		· Paper Size:A4 ,legal, letter		
		· First print out time:5.5 sec		

		· Multipurpose Tray:100Sheets		
		· Display: 5 line LCD		
		· Network, wifi		
		· Memory(RAM):Min,1GB or higher		
		· Duplex Printing: Standard		
		· Duty cycle:80,000 Pages		
		· <b>Warranty:</b> One Year warranty on site		
		· Spare Parts availability in market		
		· Toner availability		
3.4	<b>Heavy duty Scanner</b>	· Desktop Sheet Feed Document Scanner		
		· 120ppm / 220ipm (A4, Land scape) or above		
		· Feeding Capacity 500 – 700 Sheets or higher		
		· Scanning Technology 3-Line CIS		
		· Scanning Side Simplex & Duplex		
		· USB3.1 Gen1, 10Base-T/100Base-T/100Base-Tx/1000Base-T		
		· Daily Duty Cycle 50000-100,000 pages or higher		
		· File Formats JPEG, TIFF, PDF (Searchable), BMP, PNG, PPTX		
		· Scan size Legal,A4		
		· Light Source LED		
		· Scanning features Double Feed Deduction, Folio, Scanning,2D/Barcode		
		· Temperature 10 to 35C		
		· Document Size width 50.8 to 305mm Length		

		5.588mm		
		Warranty: One Year Warranty and availability of parts in market.		
3.5	<b>Medium duty Scanner</b>	· Sheet Feed Document Scanner		
		· Speed 45 PPM/90 IPM duplex		
		· Scanning side: Front/Back/Duplex		
		· Multi page scanning, scanning both side of page automatically		
		· Scanning modes B&W, Color Gray Scale & 24 bit color		
		· 60 Sheet ADF Capacity		
		· Scanning Resolution 600 dpi		
		· Hi-speed USB 2.0		
		· Warranty: One Year Warranty and availability of parts in market.		
3.6	<b>Heavy Duty Photocopier</b>	· Speed 85 CPM or Higher		
		· Printing Resolution 1200 x 1200 dpi		
		· Paper supply (standard): 2 × 1,770-sheet paper decks + 570-sheet cassette + 250-sheet multipurpose tray Paper Support 4200 Sheets or higher		
		· Memory 6.5 GB or higher		
		· 9999 Continuous Copying or higher		
		· SSD 512 GB		
		· Max. Copy Size A-3		
		· Built In Network Color Scanner A3 Size		

		· Built In Network Printer A3 Size		
		· Toner yield: 90,000 pages ( <b>6% coverage</b> )		
		· Built in DADF 200 sheets or above		
		· Drum <b>1.1 million pages</b> or higher (single drum)		
		· Monthly duty cycle of 1000,000 pages		
		· <b>Warranty:</b> One Year Warranty		
3.7	<b>Medium Duty Photocopier</b>	· Speed 45-Copies per minute speed		
		· Printing Resolution 1200 x 1200 dpi		
		· RAM 2 GB or higher		
		· Paper Support 550+550 Sheets		
		· 100 Sheet stack by pass		
		· 9999 Continuous Copying or higher		
		· Max. Copy Size A-3		
		· Built In Duplex Copying & Printing		
		· Built In Network Color Scanner A3 Size		
		· Built In Network Printer A3 Size		
		· Built in send feature ( Scan to email)		
		· Built in DADF		
		· Network & Wi-Fi		
		· Trolley		
		· <b>Warranty:</b> One Year Warranty		
3.8	<b>3 in 1 printer</b>	· Print, Scan, Copy with ADF 50 sheet capacity		
		· Printer speed: 40 ppm or above		

		(A4,legal,letter A5		
		· Wi-Fi connectivity, Maximum copy 999, Duplex standard		
		· Print resolution 1,200 × 1,200 dpi (eq.)		
		· Memory: 1GB or Higher		
		· Paper Size: A4, Legal, Letter		
		· Network connectivity, LCD 5 inches		
		· Paper support 250 sheet 100 sheet by pass		
		· <b>Warranty:</b> One Year Warranty		
3.9	<b>Color printer</b>	· Print, Scan, Copy with ADF		
		· Printer speed: 38 ppm or above		
		· Print resolution: 600 x 600 dpi or higher		
		· Wi-Fi connectivity		
		· Network connectivity		
		· Memory: 1GB or Higher		
		· Paper support 550 sheet 100 sheet bypass		
		· <b>Warranty:</b> One Year Warranty		
3.10.	<b>Scanner Type: Flatbed</b>	Sensor: Colour CIS (Contact Image Sensor)		
		Light Source: 3-colour RGB LED		
		Optical Resolution: Up to 4800 × 4800 dpi		
		Selectable Resolution: 25 – 19,200 dpi		
		Color Depth:		
		Input: 48-bit (16-bit per color)		

		Output: 24-bit / 48-bit (Windows), 24-bit (Mac)		
		Greyscale Depth:		
		Input: 16-bit		
		Output: 8-bit		
		Scan Speed:		
		A4 Colour (300 dpi): ~8–10 sec		
		4×6 Photo (300 dpi): ~4–5 sec		
		Preview Time: ~7–9 seconds		
		Maximum Document Size: A4 / Letter		
		Interface: USB 2.0 (Mini USB / Type-C depending on model)		

**LOT No. 4**

<b>SNO</b>	<b>Item</b>	<b>Specification</b>		
4.1	<b>80mm Thermal Receipt Printer</b>	<b>Connectivity Technology's</b> Cable; Optional (Parallel Interface / Ethernet)		
		<b>Printing speed</b> : 150mm/second or Higher		
		<b>Print Resolution</b> : 180 dpi or Higher		
		<b>Features</b> : Easy drop-in paper loading with tear-bar or Auto-cutter		
		Support multiple 1D and QR code types printing		
		Support multi international languages		
		<b>Warranty:</b> One Year warranty		

4.2	<b>label printer (Medium Duty)</b>	· <b>Print Resolution:</b> Resolution 8 dots/mm(203DPI)		
		· <b>Memory:</b> 4MB Flash memory, 8MB SDRAM		
		· Processor: 32 bit RISC CPU		
		· Interface,USB 2.0, RS-232		
		· Printing Method Thermal Transfer & Direct Thermal		
		· Max: Print Speed 127 mm(5'')/Second		
		· Max: Print Width 108mm(4.25'')		
		· Max: Print Length 2,286mm(90'')		
		· Enclosure ABS Plastic		
		· Label Roll Capacity 110 mm(4.33'') OD		
		· Ribbon 300m Long Max		
		· Ribbon Width 40 mm~110 mm(1.6''~4.3'')		
	<b>Warranty:</b> One Year comprehensive warranty including parts and Onsite support			

**LOT No. 5**

S.N O	Item	Specification		
5.1	<b>Patient Card printer</b>	· <b>Print method:</b> Dye-Sublimation direct to Card		
		· <b>Print Resolution:</b> 300*300 DPI		
		· <b>Print Area:</b> Edge to Edge(CR-80 Cards)		
		· <b>Print mode:</b> Duel side(Optional)		
		· <b>Print Speed:</b> 180 CPH (YMCO, single side,		

		batch (1), 850CPH (monochrome printing (1).		
		· <b>Card Thickness:</b> 0.25mm,-1.25mm(10mil-50mil)		
		· <b>Card Types:</b> CR-80PVC, PVC-C Rewritable cards.		
		· <b>Input Hopper Capacity:</b> 100 Cards(0.76mm)-30mil		
		· <b>Output Hopper Capacity:</b> 30Cards(front)80 Cards(rear)		
		· <b>Exception feeding:</b> Included		
		· <b>Communication Interface:</b> USB2.0/Ethernet10baseT,100baseT, wifi802.11a		
		· <b>Smart Ribbon Protection:</b> Ribbon automatic recognition(RFID(13.56MHz)TAG		
		· <b>Two level encoding Protection:</b> Memory:128Mbytes,safety:support for kensing security lock		
		· <b>Operating system:</b> window C drive,xp,window7,window10(32bit,64bit)		
		· <b>Warranty Printer:</b> 24 months Print head: Lifetime Warranty		
		· parts and Onsite support		

5.2.	<b>RFID Card Printer With Lamination Module</b>	· <b>Print Method:</b> Dye-sublimation Retransfer		
		· <b>Print Mode:</b> Single- or double-sided (optional) over-the-edge retransfer printing		
		· <b>Print Resolution:</b> 300 dpi		
		· <b>Print Speed:</b> Up to 102 cards per hour (single-sided)		

		· <b>Card Types:</b> PVC, Composite PVC, ABS, PET and Polycarbonate Cards of ISO ID - 1/CR-80 size (85.60 x 53.98 mm)		
		· <b>Card Thickness:</b> 0.25 - 1.02 mm (hopper adjustment required)		
		· <b>Input Hopper Capacity:</b> 200 cards (0.76 mm)		
		· <b>Output Hopper Capacity:</b> 100 cards (0.76 mm)		
		· <b>Interface:</b> USB 2.0 and Ethernet		
		· Operating System Support: Windows 7, 8,10 (32 & 64bits)		
		· <b>Lamination Method:</b> Thermal transfer		
		· <b>Lamination Mode:</b> Double-sided (simultaneously)		
		· <b>Lamination Speed:</b> 16 – 30 seconds per card (double-sided)		
		· <b>Power Supply:</b> 100/120 V and 220/240 V, 50/60 Hz GOST-R, CE, and UL approved		
		· Operating Environment: 15°C to 30°C, 35% to 70% non-condensing humidity		
		· Warranty Printer: 24 months Print head: Lifetime Warranty		
5.2.1	<b><u>Consumables</u></b>	a. Color Ribbon YMCK (1000 Images)		
		b. Retransfer Film (1000 Images)		
		c. Holographic Lamination (1250 Images)		
		d. Cleaning Kit		
5.3	<b>Wrist band</b>	Ø Print Speed:8inch/normal 2 inch/s		

	<b>Printer</b>	Ø Ineterface:USB		
		Ø Resolution:203DPI		
		Ø Roll Size: Maximum outer diameter of 100mm.Inner diameter of inner of minimum 25mm		
		Ø Paper size:20mm,60mm		
		<b>Warranty:</b> One Year Warranty and availability of parts in market.		

<b>LOT No. 6</b>				
<b>SNO</b>	<b>Item</b>	<b>Specification</b>		
6.1	MS Windows Server 2019 Enterprise)	Microsoft windows Server 2019 (Enterprise)		
	(License)			
6.2	MS Windows Server 2019 Standard )	Microsoft Windows Server 2019 (Standard)		
	(License)			
6.3	MS Windows 11 (License)	Microsoft Windows 11		
6.4	MS Office 2019(License )	Microsoft Office 2019		
6.5	MS Office 365 Business	Microsoft 365 Business		
	(License)			
6.6	Microsoft 365 Business	Microsoft 365 Business Standard		

	Standard			
	(License)			
	Microsoft 365 Personal	Microsoft 365 Personal		
	(License)			
6.8	Antivirus / Endpoint Security	<b>Solution Type</b>		
		Enterprise Endpoint Protection / Next-Gen Antivirus (NGAV)		
		<b>Deployment Model</b>		
		Centralized management (On-Premise / Cloud console)		
		<b>Supported OS</b>		
		Windows 10/11, Windows Server (2016/2019/2022), macOS, Linux		
		<b>Endpoint Coverage</b>		
		Desktop, Laptop, Server, Virtual Machines		
		<b>Protection Type</b>		
		Real-time protection against malware, ransomware, spyware, zero-day threats		
		<b>Detection Technology</b>		
		Signature-based + Heuristic + AI/ML-based behavior analysis		
		<b>Ransomware Protection</b>		
Advanced ransomware rollback / file recovery capability				
<b>Web Protection</b>				
URL filtering, phishing protection, malicious site blocking				

		<b>Email Protection</b>		
		Anti-phishing and malicious attachment scanning		
		<b>Firewall Control</b>		
		Host-based firewall management		
		<b>Device Control</b>		
		USB / external device control and policy enforcement		
		<b>Central Management Console</b>		
		Web-based dashboard for monitoring, reporting, and policy control		
		<b>Real-Time Updates</b>		
		Automatic signature and engine updates		
		<b>Threat Intelligence</b>		
		Cloud-based global threat intelligence integration		
		<b>EDR Capability</b>		
		Endpoint Detection and Response (incident investigation and forensic logs)		
		<b>Reporting</b>		
		Detailed security reports, alerts, and compliance dashboards		
		<b>Performance Impact</b>		
		Lightweight agent with minimal system resource usage		
		<b>User Control</b>		
		Role-based access control (RBAC) for administrators		
		<b>Isolation Feature</b>		

		Ability to isolate infected endpoints from network		
		<b>Licensing</b>		
		Minimum 3-year enterprise license (renewable)		
		<b>Support</b>		
		24/7 vendor support with security updates		
		<b>Compliance</b> ISO 27001 / GDPR / HIPAA compatible (where applicable)		

		<b>LOT NO. 7</b>		
<b>SNO</b>	<b>ITEM</b>	<b>Specification</b>		
7.1	42" LED Display	Commercial grade LED/LCD display, Full HD (1920×1080), brightness $\geq$ 300–350 nits, HDMI/USB connectivity, optional LAN support, wall mountable, 16/7 to 24/7 operation capability. Suitable for token display, counter queue system, and patient calling system.		
7.2	50" LED Display	Commercial grade LED/LCD display, Full HD (1920×1080), industrial panel with anti-glare surface, HDMI/USB connectivity, optional smart/Android OS, wall/stand mounting support, suitable for OPD counters and queue display systems.		
7.3	55" LED Display	Commercial signage display, Full HD / 4K optional, brightness $\geq$ 400–500 nits, IPS panel preferred, LAN/Wi-Fi connectivity, built-in media player, CMS support for centralized content management, suitable for waiting area information display.		
7.4	65" LED Display	Commercial 4K UHD display (3840×2160), brightness $\geq$ 450–500 nits, anti-glare panel, smart/Android system support, HDMI/USB/LAN connectivity, 24/7 operation capability, suitable for OPD halls and announcements.		

7.5	75" LED Display	Commercial 4K UHD display, brightness $\geq$ 500–600 nits, high contrast industrial panel, VESA mount compatible, designed for continuous 24/7 operation, suitable for large waiting halls and hospital dashboards.		
7.6	98" LED Display	Large format commercial display or LED video wall (P2.5–P3.9 optional), 4K UHD resolution, brightness $\geq$ 600–800 nits, ultra-narrow bezel or seamless LED design, central CMS control support, suitable for main hospital lobby and central information dashboard.		

### Network Equipment's Specifications

LOT No. 8				
S.N O	ITEM NAME	DESCRIPTION/SPECIFICATION		
8.1	SAN Storage 100TB with SAN Switch	<b>Architecture</b>		
		The storage array should support dual, redundant, hot-pluggable, active-active array controllers for high performance and reliability		
		<b>No Single point of Failure</b>		
		Offered Storage Array shall be configurable in a No Single Point of configuration including Array Controller card, Cache memory, FAN, Power supply etc.		
		<b>Capacity &amp; Scalability</b>		
		The Storage Array shall be offered with 100 TB effective usable Usable Capacity, minimum 80% NLSAS with RAID 6.		
		Remaining 20% top tier using high performace SSD/Flash.		
		Scalability upto 1PB.		

	<b>Auto Data Tiering</b>		
	Offered Storage shall also be configured for Sub-Lun Data tiering in real time fashion across different type of drives within a given pool like SSD, SAS, NL-SAS etc.		
	License shall be configured for maximum supported capacity of the array.		
	<b>Cache</b>		
	Offered Storage shall also be configured for Sub-Lun Data tiering in real time fashion across different type of drives within a given pool like SSD, SAS, NL-SAS etc.		
	License shall be configured for maximum supported capacity of the array.		
	<b>Disk Drive Support</b>		
	Storage system shall support Enterprise SAS spinning drives, SSD and and near line SAS / 7.2K RPM drives.		
	Offered storage array shall also have support for FIPS 140-2 validating self-encrypted drives.		
	<b>Front-end Ports &amp; Back-end Ports</b>		
	Offered Storage system shall be supplied with 4 x 10 Gbps, 4 ports per controller		
	Offered storage system shall support 12G SAS Back-end connectivity.		
	<b>DAC Cables</b>		
	8 x 10G SFP+ DAC cables minimum 7M		
	<b>Raid Support</b>		
	Offered Storage Subsystem shall support Raid 1 , 10, 5 and Raid 6		
	<b>Point in time and clone copy</b>		

	Offered Storage array shall be configured with array based Snapshot and clone functionality and shall be configured for minimum of 512 snapshot licenses.		
	Offered Storage array shall support at-least 512 point in time copies (Snapshots) and 128 volume / Clone copies		
	<b>Replication</b>		
	Offered storage subsystem shall support storage based replication to DR location.		
	<b>Thin provisioning</b>		
	Offered Storage shall be offered and configured with Thin Provisioning capability.		
	<b>Hot Spare</b>		
	Offered Storage Array shall support Global hot Spare for offered Disk drives.		
	Atleast 1 Global hot spare drive shall be configured for each drive type offered.		
	<b>Logical Volume &amp; Performance</b>		
	Storage Subsystem shall support minimum of 512 Logical Units. Storage Array shall also support creation of more than 120TB volume at controller level.		
	Offered Storage shall have inbuilt performance management software. Configuration Dashboard shall show overall IOPS and MB/sec performance.		
	<b>Load Balancing &amp; Muti-path</b>		
	Multi-path and load balancing software shall be provided, if vendor does not support MPIO functionality of Operating system.		
	<b>SAN Switch</b>		

	SAN Switch with 24 ports having 8 port active with Supportive SFP 16Gbps		
	<b>SAN Spare Drive</b>		
	1 Drive each Available on site separately from solution.		
	<b>Installation &amp; Configuration</b>		
	Vendor will perform onsite installtion & configure of the unit with currently available Servers.		
	To ensure optimal and reliable services, the proposed solution (SAN Storage & SAN Switch) should be of same OEM		
	Turn Key Solution.		
	<b>Installation &amp; Configuration</b>		
	Vendor will perform onsite installation & configure of the unit with currently available Servers.		
	To ensure optimal and reliable services, the proposed solution (SAN Storage & SAN Switch) should be of same OEM		
	Turn Key Solution.		
	<b>Warranty &amp; Support</b>		
	Proposed Storage shall be supplied with Comprehensive 3 Years Warranty backed by OEM.		
	<b>OEM Presence</b>		
	Proposed OEM should have registered office and presence in Pakistan for at least 7-10 Years and should have Warehouses and Support Team in Major Cities of Pakistan.		
	3 years standard warranty		
	<b>Note: Must be compatible with the existing</b>		

		<b>setup</b>		
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<b>LOT No. 9</b>				
<b>S.N O</b>	<b>ITEM NAME</b>	<b>DESCRIPTION/SPECIFICATION</b>		
9.1	<b>Core switch</b>	· 10G SFP+ ports >= 48		
		· 40/100G QSFP28 ports >= 6		
		· Memory >=4GB, Flash>=2GB		
		· Min 2 Tbps switching capacity		
		· Atleast 480 Mpps forwarding capacity		
		· 1+1 AC Power		
		· 4K VLAN		
		· MAC Address entries >= 380K		
		· ARP Entries >= 135K		
		· ACLs >= 6k		
		· QinQ, LACP, STP, RSTP, ERPS, MSTP/PVST+, LLDP, Jumbo Frames		
		· Static routes, RIP v1/2, RIPng, OSPF, OSPFv3, IS-IS, IS-ISv6, BGP, BGP4+, ECMP, routing policy		
		· IPv4 FIB >= 250K, IPv6 FIB >= 75K		
		· LDP,IPSec VPN, IGMPv1/v2/v3, PIM-DM, PIM-SM, MSDP, MBGP, IGMP snooping and Load balancing of Multicast Traffic		
· BFD, BFD for OSPF, BGP, ISIS, VRRP & Static routes				
· VXLAN L2 and L3 gateways, BGP EVPN				

	· Stacking support for upto 8 devices		
	· Support mac authentication and 802.1x authentication		
	· Support Integration with industry standard NAC Solutions like Cisco ISE		
	· Support 802.1x, Dynamic VLAN, Dynamic ACL, RADIUS CoA, Local Web Authentication, URL Redirection and SessionID, Same brand of WiFi solution		
	· Support Automation with SDN Controller and NETCONF/YANG		
	· CLI and Web interface (HTTPS), Telnet, SSH v2, SNMP v1, v2, and v3		
	· Support Automation with SDN Controller		
	· Quoted brand must be a Leader by Gartner LAN Wired and Wireless Magic Quadrant at least once in last 3years		
	· Support Traffic classification, Traffic behavior, Traffic shaping, Congestion avoidance/Management		
	· Support ARP security, DAI, SAI		
	· DoS attack defense, ARP attack defense, and ICMP attack defense , CPU protection, Blacklist		
	· Operating Temperature -5°C to 45°C		
	· Warranty and support/security subscription for 3 years		
	· Hardware and RMA with 24/7 enhanced support via telephone, email and remote free security updates and patches, free software feature updates and upgrades		
	· <b>Note: Must be compatible with the existing setup</b>		

9.2	<b>Access Switch</b>	· 10/100/1000Base-T ports, ports $\geq 24$		
		· 10 GE SFP+ ports $\geq 4$		
		· Dedicated Stack ports $\geq 2$		
		· Memory $\geq 2$ GB, Flash $\geq 1$ GB		
		· Min 176 Gbps switching capacity		
		· Atleast 130 Mpps forwarding capacity		
		· PoE $\geq 400$ W		
		· 4K VLANs		
		· MAC Address entries $\geq 30$ K		
		· ARP Entries $\geq 2$ K		
		· ACL Rules $\geq 2$ K		
		· QinQ, LACP, STP, RSTP, ERPS, MSTP/PVST+, LLDP, Jumbo Frames		
		· IPv4 Static Routing, RIP, RIPing, OSPF, OSPFv3		
		· FIBv4 $\geq 4$ k , FIBv6 $\geq 1$ k		
		· IGMPv1/v2/v3, PIM-DM, PIM-SM, IGMP snooping and Load balancing of Multicast Traffic		
		· Stacking support for upto 4 devices		
		· Support MAC authentication and 802.1x authentication, Dynamic VLAN, Dynamic ACL, RADIUS CoA, Local Web Authentication, URL Redirection		
		· Support Integration with industry standard NAC Solutions like Cisco ISE, Same brand of WiFi solution.		
		· CLI and Web interface (HTTPS)		

		· Telnet, SSH v2, RMON,SNMP v1, v2, and v3 , Telemetry		
		· Support Automation with SDN Controller and NETCONF/YANG		
		· Support NETCONF, Netstream, Netflow		
		· Quoted brand must be a Leader by Gartner LAN Wired and Wireless Magic Quadrant atleast once in last 3years		
		· 8 Queues per port, Support Traffic classification, Traffic behavior, Traffic shaping, Congestion avoidance/Management		
		· Support ARP security, DAI, SAI, CPU Defense, Storm Control and Strom Suppression		
		· Operating Temperature -5C to +50C		
		Humidity 5% to 95%RH		
		· Hardware and RMA with 24/7 inhanced support via telephone, email and remote free security updates and patches, free software feature updates and upgrades		
		· <b>Note: Must be compatible with the existing setup</b>		

**LOT No. 10**

<b>S.N O</b>	<b>ITEM NAME</b>	<b>DESCRIPTION/SPECIFICATION</b>		
10.1	<b>WLAN Controller</b>	<b>WLAN Controller</b>		
		<b>Processor:</b> Quad-core ARM® Cortex®-A57 at 2.0 GHz.		
		· <b>Memory:</b> 8 GB DDR4.		
		· <b>Storage:</b> 32 GB eMMC (system) + 128 GB SSD (integrated for NVR detection recordings).		

		<ul style="list-style-type: none"> <li>• <b>NVR Capacity:</b> 2x 3.5" NVR HDD bays (supports RAID data protection).</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Networking Interfaces:</b></li> </ul>		
		<ul style="list-style-type: none"> <li>o <b>WAN:</b> 1x 10G SFP+, 1x 2.5 GbE RJ45.</li> </ul>		
		<ul style="list-style-type: none"> <li>o <b>LAN:</b> 1x 10G SFP+, 8x GbE RJ45.</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Throughput:</b> Up to 5 Gbps (with IDS/IPS enabled).</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Dimensions:</b> 442.4 x 43.7 x 285.6 mm.</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Weight:</b> 4.7 kg (10.4 lb).</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Power:</b> 100W Internal AC/DC Power Supply; Supports Redundant Power System (USP-RPS).</li> </ul>		
		<ul style="list-style-type: none"> <li><b>Display:</b> 1.3" Touchscreen for status and management.</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Features:</b> Full application suite (Network, Protect, Access, Talk), Shadow Mode (VRRP) for High Availability.</li> </ul>		
		<ul style="list-style-type: none"> <li><b>Performance Highlights:890</b></li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Capacity:</b> Double the device/client capacity of the original UDM-Pro/SE.</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Security:</b> Next-generation security featuring application-aware firewalls, AI-powered threat detection, and signature-based IDS/IPS.</li> </ul>		
		<ul style="list-style-type: none"> <li>• <b>Dual NVR Bays:</b> Supports RAID 1 for increased storage reliability in surveillance applications.</li> </ul>		
		<ul style="list-style-type: none"> <li>Warranty and support/security subscription for 3 years</li> </ul>		
10.2	Access Point	Access Point Wireless Dual Band Gigabit Ceiling Mount Access Point		

		<b>Key Specifications &amp; Features:</b>		
		· <b>Wi-Fi Standard:</b> Wi-Fi 7 (802.11be)		
		· <b>Data Rates:</b> 5 GHz: 4.3 Gbps (2x2 MIMO) / 2.4 GHz: 688 Mbps (2x2 MIMO)		
		· <b>Throughput:</b> 4 spatial streams (2x2 on 2.4 & 5 GHz)		
		· <b>Networking Interface:</b> 1x 2.5 GbE RJ45 port		
		· <b>Coverage Area:</b> Approx. 115 m <sup>2</sup> (1,250 ft <sup>2</sup> )		
		· <b>Max Clients:</b> 200+		
		· <b>Power Method:</b> PoE (Power over Ethernet)		
		· <b>Max Power Consumption:</b> 13W		
		· <b>Dimensions:</b> 171.5 x 33 mm		
		· <b>Management:</b> Network Controller (version 9.0.114+)		
		· <b>Security:</b> WPA3/WPA2, Guest Isolation, VLAN support		
		Power Cord		
		Mounting Kit		
		Installation Guide		
		Warranty and support/security subscription for 3 years		

LOT No. 11				
11.1	<b>Door locker Biometric</b>	Access controller installation and configuration with all Passive work		
		Back box for push button, Push Button, water proof box		

		Electric magnetic lock  180		
		Power Adopter 12 volt		
		Zkteco MB 20		
11.2	<b>Employee Attendance Machine</b>	<b>Fingerprint Capacity</b>		
	<b>POE</b>	5,000		
		<b>Face Capacity</b>		
		3,000 (1:N) / 4,000 (1:1)		
		<b>Card Capacity</b>		
		10,000		
		<b>Transaction Capacity</b>		
		100,000		
		<b>Communication</b>		
		TCP/IP, USB Host / Client, Wiegand Output		
		<b>Hardware</b>		
		1.2GHz Dual-Core CPU, Memory 128MB RAM / 256MB Flash, SilkID Fingerprint Sensor, 4.3 Inches TFT-LCD Screen, Hi-Fi Voice & Indicator, Tamper Switch Alarm		
		<b>Standard Functions</b>		
		ID Card, Work Code / ADMS, DST / SMS / Bell Schedule, Attendance Status Auto-Switch, Record Query / Photo ID, Custom Wallpaper & Screen Saver		
		<b>Functions</b>		
		HID / Mifare Card Reader, External Printer , Wi-Fi / 3G / 4G, Battery (2,000 mAH), POE		

		<b>Special Functions</b>		
		Multiple Biometric Verification Modes, Alive Finger Detection, Duplicate Face Detection		
		<b>Access Control Interface</b>		
		Lock Relay Output, Alarm Output, Exit Button, Door Sensor, External Bell Output		
		<b>Compatibility</b>		
		BioTime		
		<b>Working Temperature</b>		
		0 °C – 45 °C		
		<b>Dimensions</b>		
		199.2 × 171.8 × 96.9 mm		
		<b>Algorithm</b>		
		ZKFace v7.0 & ZKFinger v10.0 Algorithms		
11.3	<b>Employee Attendance Machine</b>	<b>Fingerprint Capacity</b>		
	<b>Face Detection</b>	5,000		
	<b>Face Capacity</b>			
		3,000 (1:N) / 4,000 (1:1)		
	<b>Card Capacity</b>			
		10,000		
	<b>Transaction Capacity</b>			
		100,000		
	<b>Communication</b>			

	TCP/IP, USB Host / Client, Wiegand Output		
	<b>Hardware</b>		
	1.2GHz Dual-Core CPU, Memory 128MB RAM / 256MB Flash, SilkID Fingerprint Sensor, 4.3 Inches TFT-LCD Screen, Hi-Fi Voice & Indicator, Tamper Switch Alarm		
	<b>Standard Functions</b>		
	ID Card, Work Code / ADMS, DST / SMS / Bell Schedule, Attendance Status Auto-Switch, Record Query / Photo ID, Custom Wallpaper & Screen Saver		
	<b>Optional Functions</b>		
	HID / Mifare Card Reader, External Printer , Wi-Fi / 3G / 4G, Battery (2,000 mAH), POE		
	<b>Special Functions</b>		
	Multiple Biometric Verification Modes, Alive Finger Detection, Duplicate Face Detection		
	<b>Access Control Interface</b>		
	Lock Relay Output, Alarm Output, Exit Button, Door Sensor, External Bell Output		
	<b>Compatibility</b>		
	BioTime		
	<b>Working Temperature</b>		
	0 °C – 45 °C		
	<b>Dimensions</b>		
	199.2 × 171.8 × 96.9 mm		
	<b>Note: Must be compatible with the existing setup</b>		
	<b>and HMIS system</b>		

LOT-12			
S.No	Patient Queue Management System		
12	<b>QMS Server Software:</b>	Queue Management Core features with Segmentation & Categories, System should be fully web based, no software installations on local PCs should be required in branches. Rules Based Routing, Multi Queuing Calling; System should support for achieving consistency for all organization branches. It should be possible to create branch operations profiles and assign one or several branches to each operational profile. In each operations profile it should be possible to define the list of services, segmentation rules, calling rules, staff working profiles, Individual logins and hardware profiles. Support at-least 2/9 users for Configuration, Central monitoring, Dash boards etc. System should support mixed, Centralized or Distributed architecture. System should support distributed architecture. In distributed Architecture branch should run even without connection to central server. Statistical Data of Served Categories, Waiting time, Serving Time. System should be possible to run both on Windows or Linux servers Licensing model should be suitable to enterprise organization, Solution must be GDPR Compliant.	
	Handle Upto 9 Counter/Clinic Users Including 2 users for configuration central monitoring, dash board		
	Additional Features (Fully Supported) (To Handle Future Requirements of Hospital) Supporting Documents along with supporting Purchase Orders; Auto Email or SMS notifications to Customers (Customer Alerts) (Optional); Notification Application allows for the configuration of SMS and Email notifications. Customers can be informed via sms or email when they have been called to the counter or when they have booked an appointment, when they have been issued a ticket, appointment reminder and post service notification.		

	<p>Customize Ticket &amp; Text;It must be possible for a non developer to easily change ticket design in a WYSIWYG editor. It must be possible to print pictures as clients logo or similar on tickets, Support QR Code scan ticket to Wait anywhere within hospital premises</p>		
	<p>For future requirements, the QMS software structure should be capable of printing tickets on patient registration slips issued through HMS through integration. The solution must offer multiple integration points when deployed in a distributed setup, ensuring that both local and remote components have access to the same interfaces and that communication between tiers is managed seamlessly by the underlying application logic. (Complete Supporting Document along atleast 1 practical case submittal of concern requirement with in Pakistan)</p>		
	<p>Appointment Solution (Optional); Should Support Appointment Solution must allow authorized DPS users to create, view, modify, cancel, reschedule, and add notes to an appointment in a calendar view on a computer and on a hand- held device.</p>		
	<p>Architecture;System should be fault tolerant meaning that branch should be able to operate without any disturbance even when a connection to central system is down or slow. Once the connection is back again - all local data should be synced with the central system so that no data is lost. It should be possible to deploy High Availability architechture. (Fully Supported) API Connectivity with REST, HTTP, Web Sockets, UTT, Mobile, JDBC (Fully Supported)</p>		
<b>2</b>	<p><b>Ticket Touch Podium / Kiosk Max 10" with Floor/Table Stand (To be Positioned at or near the Reception Area) (2)</b></p>		
	<p>Ticket Dispenser 10" KIOSK (Capacitive Touch), Operating System: Android 1280x800 pixels or above, Supports all windows Fonts and Multilingual Languages, Thermal Printing, Print Speed Max: 250 mm/s, 8 dots/mm (203dpi), Auto Cutter (1.5 millions cuts), Power Consumption Stand by: Approx 10watt, Printing Wmax 60watt, Tmax = 1 sec, Supported 10/100 Mbit/s Ethernet, Minimum: 10Mbit/s, Expected Life - Thermal Print Head: More than 1.65 Million Standard Ticket (60mm/2.4") at Print Rate 12.5% CE, RoHS2, FCC ID (Safety Complaint), Supported Barcode/Card/Proximity Readers (If required "Fully Supported"), Kiosk Body: MS Sheet/Powder Coated, Printer ABS Plastic, Floor Mount Floor Stand = 2</p>		

<b>3</b>	<b>QMS User/Calling Software: (09)</b>			
	Call next customer, Transfer Ticket No. Customization of Webterminal will be required, Close counter, Select Service Profile or Fixed One time, Staff login , Recycle, Show staff name & Service, Customizable Layout & Buttons.			
<b>4</b>	<b>32" Waiting Area Display LED TV Queue Information (Branded) (03)</b>			
	Completely IP Based, Programable and Configurable Centralized, Supporting both Central Server and distributed Master-Slave server architectures. Player Device (Android/Windows), LED TV that can show ticket No. Along with Counter No., Connectable with Bell or Announcement			
<b>5</b>	<b>Counter/Clinic LED Display (09)</b>			
	Completely IP Based, Programable and Configurable Centralized, Supporting both Central Server and distributed Master-Slave server architectures. Show Ticket Number on Counters, Support Branding, Clinic Numbers, With no limitations 3 or 4 Digits, Support Multilingual Languages, Color depth determines the range and accuracy of colors displayed. Multiple programable queing options and capable of interconnecting with PC Based Web terminal or Mobile Calling Terminal. Connectable with queue software, Play Advertisement, Images etc, Flash ticket and counter number and show OFF when closed, System shall be equipped with power supply units (Included in devices). Power supply units shall be LVD (Low Voltage Directive)			
<b>6</b>	<b>Announcement System</b>			
		<b>Announcement Device for tickets number (Urdu &amp; English), as per actual requirement in each Department.</b>		
	Voice Device	1		
	Amplifier	1		
	Speakers	2		
<b>7</b>	<b>Server PC for QMS (01)</b>			

	Minimum Core i5, 16GB, 512SSD with LED or As per System requirement		
<b>8</b>	<b>Network Switches with Rack (Managed/Un-Managed)</b>	As per Survey Requirement	
<b>9</b>	Supply, Installation, Cabling, Delivery, Commissioning, Training in all Aspects: 1 time Job		
<b>10</b>	Warranty and Service level Agreement (SLA):		
	Hardware & Services Warranty 1 Year and After 1 year Service Level Agreement Strategy should be defined in the financial year for at-least 1 year.		
	2 Years SLA Comprising:		
	1 Year Warranty period with Maintenance, parts and Technical Support. End-to-end support of the entire system including replacement of defective parts, at no additional cost.		

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<b>04-LOT-VARIOUS INSTRUMENTS (IMPORTED) (MULTIPLE LOTS)</b>					
<b>Made: Country of Origin &amp; Manufacturer:</b>					
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>SNO. of the Item accor ding to BSD S</b>	<b>Item Name</b>	<b>Pack Size</b>	<b>Set Price</b>	<b>Firm's Quoted Specific ations</b>	<b>Anne xure/ Page No.</b>
<i><b>SET PRICE SHALL BE QUOTED SEPARATE FOR EACH SET</b></i>					
<b>LOT No. 1</b>					
<b>I</b>	<b>ORTHOPEDIC INSTRUMENTS</b>				
<b>A</b>	<b>Dressing Set with Box</b>		Set Price Rs.		
<b>B</b>	<b>General Orthopedic /cutting item</b>		Set Price Rs.		
<b>C</b>	<b>General cutting set (Ortho)</b>		Set Price Rs.		
<b>D</b>	<b>General Orthopedic set</b>		Set Price Rs.		
<b>E</b>	<b>Small Fragment set</b>		Set Price Rs.		
<b>F</b>	<b>Large Fragment set</b>		Set Price Rs.		
<b>G</b>	<b>Bone Holding Forceps Set</b>		Set Price Rs.		
<b>H</b>	<b>Carpal Tunnal Set</b>		Set Price Rs.		
<b>I</b>	<b>Kuntscher wire set</b>		Set Price Rs.		
<b>J</b>	<b>Hand Surgery instruments For Ortho &amp; Spine</b>		Set Price Rs.		
<b>K</b>	<b>Spine surgery instrument set</b>		Set Price Rs.		
<b>L</b>	<b>General Orthopaedic instrument set</b>		Set Price Rs.		
<b>M.</b>	<b>Instrument Set for DHS/DCS</b>		Set Price Rs.		

<b>N.</b>	<b>Expert Tibia Nail with Lid</b>		Set Price Rs.		
<b>O.</b>	<b>Expert Femur Nail with Lid</b>		Set Price Rs.		
<b>P.</b>	<b>PFN Box with Lid</b>		Set Price Rs.		
<b>Q.</b>	<b>REAMERS SET</b>		Set Price Rs.		
<b>R.</b>	<b>AUSTIN MOORE HIP PROSTHESIS INSTRUMENT SET</b>		Set Price Rs.		
<b>S.</b>	<b>EXTERNAL FIXATOR LARGE INSTRUMENT SET</b>		Set Price Rs.		
<b>T.</b>	<b>External Fixator (Medium) Instruments Set</b>		Set Price Rs.		
<b>U.</b>	<b>BIPOLAR INSTRUMENT SET</b>		Set Price Rs.		
<b>V.</b>	<b>ILIZAROV SET</b>		Set Price Rs.		
<b>W</b>	<b>Standard/ Orthopedic General Instrument Set:</b>		Set Price Rs.		
<b>II</b>	<b>SURGICAL OT</b>		Set Price Rs.		
<b>III</b>	<b>INSTRUMENTS FOR A&amp;E</b>		Set Price Rs.		
<b>LOT No. 2</b>					
<b>IV</b>	<b>INSTRUMENTS FOR GYNAE</b>				
<b>A</b>	<b>Cesarean Section (C-SECTION) Set</b>		Set Price Rs.		
<b>B</b>	<b>Total Abdominal Hestectomy ( T.A.H SET)</b>		Set Price Rs.		
<b>C</b>	<b>Virginal Hestectomy (VH SET)</b>		Set Price Rs.		
<b>D</b>	<b>Vasico Vaginal Fistula V.V.F SET</b>		Set Price Rs.		
<b>E</b>	<b>Dilatation And Crenation (D.N.C SET)</b>		Set Price Rs.		
<b>F</b>	<b>Debrainment And Dressing ( D/D) SET</b>		Set Price Rs.		
<b>G</b>	<b>Miscellaneous Instrument</b>		Set Price Rs.		
<b>H</b>	<b>Diagnostic Laparoscopic Instruments</b>		Set Price Rs.		

<b>I</b>	<b>Hysteroscopy Instruments</b>		Set Price Rs.		
<b>J</b>	<b>Laparoscopy Instruments</b>		Set Price Rs.		
<b>K</b>	<b>Colposcopy Instrument</b>		Set Price Rs.		
<b>LOT No. 3</b>					
<b>V</b>	<b>NEURO SURGERY INSTRUMENTS</b>				
<b>A</b>	<b>Dressing Set with Box</b>		Set Price Rs.		
<b>B</b>	<b>Neuro Surgery Instruments</b>		Set Price Rs.		
<b>C</b>	<b>Thoracotomy set</b>		Set Price Rs.		
<b>D</b>	<b>Laminectomy Set</b>		Set Price Rs.		
<b>E</b>	<b>Surgical Cutting set</b>		Set Price Rs.		
<b>F</b>	<b>Transpedicular fixation set</b>		Set Price Rs.		
<b>G</b>	<b>Cervical fixation set (Ant &amp; Post)</b>		Set Price Rs.		
<b>H</b>	<b>Emergency Craniotomy set</b>		Set Price Rs.		
<b>I</b>	<b>Odontoid screw set</b>		Set Price Rs.		
<b>J</b>	<b>Kyphoscoliosis surgery set</b>		Set Price Rs.		
<b>K</b>	<b>Micro Craniotomy Set</b>		Set Price Rs.		
<b>L</b>	<b>Micro Surgical Set for aneurysmal clipping.</b>		Set Price Rs.		
<b>M.</b>	<b>SPINAL RETRACTORS LOCAL</b>		Set Price Rs.		

	<b>Details of above</b>				
<b>LOT No. 1</b>					
<b>I</b>	<b>ORTHOPEDIC INSTRUMENTS</b>				
<b>A.</b>	<b>Dressing Set with Box</b>		Each Set		
<b>1</b>	<b>Artery Forceps M.size plain, curved</b>	Each			
<b>2</b>	<b>Needle Holder</b>	Each			
<b>3</b>	<b>Scissor Large</b>	Each			
<b>4</b>	<b>Kidney Tray medium</b>	Each			
<b>B.</b>	<b>General Orthopedic /cutting item</b>		Each Set		
<b>1</b>	<b>BP Handle size"4"</b>	Each			
<b>2</b>	<b>Bp Handle size"3"</b>	Each			
<b>3</b>	<b>Bone Holding Large Size</b>	Each			
<b>4</b>	<b>Bone Holding Medium Size</b>	Each			
<b>5</b>	<b>Bone Holding Small Size</b>	Each			
<b>6</b>	<b>Needle Holder Large Size</b>	Each			
<b>7</b>	<b>Needle Holder Medium Size</b>	Each			
<b>8</b>	<b>Kidney Tray Large</b>	Each			
<b>9</b>	<b>Large Size Deep self retaining retractor Large</b>	Each			
<b>10</b>	<b>Spange Holder Forceps</b>	Each			
<b>11</b>	<b>Curved Oestotone elevator Large</b>	Each			
<b>12</b>	<b>Curved Oestotone elevator Medium</b>	Each			
<b>13</b>	<b>Curved Oestotone elevator Small</b>	Each			
<b>14</b>	<b>Bone Cutter Large size doube action</b>	Each			
<b>15</b>	<b>Choder Curved Large Size</b>	Each			

16	<b>Choder Straight Large size</b>	Each			
17	<b>Nigus Rt angle forcesp</b>	Each			
18	<b>Pharyngeal suction tips</b>	Each			
19	<b>Chocker Forcep (Curved) Medium</b>	Each			
20	<b>Chocker Forcep (Curved) Small</b>	Each			
21	<b>Straight oestotume</b>	Each			
22	<b>Bone nibbler Large</b>	Each			
23	<b>Bone nibbler Small</b>	Each			
24	<b>Player</b>	Each			
<b>C.</b>	<b>General cutting set (Ortho)</b>		Each Set		
1	<b>Scalpel Handle size 3</b>	Each			
2	<b>Scalpel Handle size 4</b>	Each			
3	<b>Scalpel Handle size 7</b>	Each			
4	<b>Metzenbaum scissors, size 18cm CVD B/B</b>	Each			
5	<b>Mayo Scissors 17cm CVD B/B</b>	Each			
6	<b>Allis Tissue Forceps 20cm/15cm str</b>	Each			
7	<b>Kocher Forceps 15cm Str.</b>	Each			
8	<b>Sponge Holder 23cm</b>	Each			
9	<b>Adson tissue forceps plain 12cm</b>	Each			
10	<b>Adson tissue forceps Tooth 12cm</b>	Each			
11	<b>Dressig Forcep plain 18cm</b>	Each			
12	<b>Dressig Forcep Tooth 18cm</b>	Each			
13	<b>Mayo Needle Holder 18cm/ 20cm</b>	Each			
14	<b>Non Tramatic forceps 15cm str.</b>	Each			

15	Non Tramatic forceps 20m str.	Each			
16	Kelly Foreeps 14cm CVD	Each			
17	Kelly Foreeps Mosquito 12cm CVD	Each			
18	Senn Mueller Retractor 16cm	Each			
19	Langenbeck Retractor Small	Each			
20	Langenbeck Retractor Medium	Each			
21	Langenbeck Retractor Large	Each			
22	Czerney Retractor 18cm	Each			
23	Self retaining retractor adson 23cm	Each			
24	Self retaining retractor adson 16cm	Each			
25	Backhaus Towel Clips 15cm	Each			
26	Lane Tissue forceps 18cm	Each			
27	Dressing forceps tooth heavy 17cm	Each			
28	Galipot, 100ml	Each			
29	Bowl 200ml	Each			
30	Kidney Tray German pattern Large/Small	Each			
D.	General Orthopedic set		Each Set		
1	Hohmann retractor Small	Each			
2	Hohmann retractor Medium	Each			
3	Hohmann retractor Large	Each			
4	Hohmann retractor X-Large	Each			
5	Hammer 350gm	Each			
6	Hammer 500gm	Each			
7	Bone Curette Small	Each			

8	<b>Bone Currette Medium</b>	Each			
9	<b>Bone Currette Large</b>	Each			
10	<b>Ruler S.S Large</b>	Each			
11	<b>Bone Nibbler Luer 23cm Str.</b>	Each			
12	<b>Bone Nibbler Luer 23cm CVD</b>	Each			
13	<b>Bone Hook 20cm Sharp</b>	Each			
14	<b>Putti Rasp</b>	Each			
15	<b>Bone cutter Liston 18cm str.</b>	Each			
16	<b>Bone cutter Liston 23cm str.</b>	Each			
17	<b>Bone Nibbler 18cm str.</b>	Each			
18	<b>Bristow elevator 20cm cvd</b>	Each			
19	<b>Periosteal elevator 20cm cvd</b>	Each			
20	<b>Osteotome stile 10mm str.</b>	Each			
21	<b>Osteotome stile 12mm str.</b>	Each			
22	<b>Chisel stille 10mm str.</b>	Each			
23	<b>Chisel Stille 12mm str.</b>	Each			
24	<b>Gouges stille 10mm str.</b>	Each			
25	<b>Gouges stille 12mm str.</b>	Each			
26	<b>Gigli Saw</b>	Each			
27	<b>Gigli Saw Handle</b>	Each			
28	<b>Bone Holding With Thread lock 28cm x 23mm</b>	Each			
29	<b>Bone Holding Lane 33cm</b>	Each			
30	<b>Amputation saw saterlee 31cm</b>	Each			
<b>E.</b>	<b>Small Fragment set</b>		Each Set		

1	<b>Drill bit 2.5mm</b>	Each			
2	<b>Drill bit 3.2mm</b>	Each			
3	<b>Countersink small</b>	Each			
4	<b>Drill guide for drill bit 2.0mm</b>	Each			
5	<b>Cancellous Tap 3.5mm</b>	Each			
6	<b>Sleeve for drill bit 2.0mm</b>	Each			
7	<b>Insert sleeve 2.5mm</b>	Each			
8	<b>Insert sleeve 3.5mm</b>	Each			
9	<b>Tap Sleeve 3.5mm</b>	Each			
10	<b>Drill Sleeve 2.5mm</b>	Each			
11	<b>Heagonal screw driver 2.5mm</b>	Each			
12	<b>Depth gauge small</b>	Each			
13	<b>Neutral and load drill guide 2.5mm</b>	Each			
14	<b>Sharp hook</b>	Each			
15	<b>Bender for plates 2</b>	Each			
16	<b>Bender Templates 7Hole</b>	Each			
17	<b>Bender Templates 9Hole</b>	Each			
18	<b>Self centering bone holder 150mm</b>	Each			
19	<b>Reduction forceps pointed</b>	Each			
20	<b>Reduction forceps Small fragment</b>	Each			
21	<b>Retractor small with broad shank</b>	Each			
22	<b>Retractor small width 6mm</b>	Each			
23	<b>Retractor small width 8mm</b>	Each			
24	<b>Periosteal elevator straight edge width 6mm</b>	Each			
25	<b>Screw forceps</b>	Each			

26	AO Coupling fiber handle	Each			
27	T-Handle	Each			
F.	Large Fragment set		Each Set		
1	Drill bit end TO fit coupling 3.2mm	Each			
2	Drill bit end TO fit coupling 4.5mm	Each			
3	Malleolar countersink 3.2mm tip	Each			
4	Tap 4.5mm	Each			
5	Tap 6.5mm	Each			
6	Tap Sleeve 3.5mm	Each			
7	Pointed Drill guide	Each			
8	Hexagonal screw driver 3.5mm	Each			
9	Hexagonal screw driver 4.5mm	Each			
10	Depth Gauge 4.5mm	Each			
11	Depth Gauge 6.5mm	Each			
12	Sharp hook	Each			
13	Neutral and load drill guide 3.2mm	Each			
14	Bending Templates 5Holes	Each			
15	Bending Templates 7Holes	Each			
16	Bending Templates 9Holes	Each			
17	T-Handle	Each			
18	Tape Handel	Each			
19	Plate Bender Iron	Each			
20	Countersink 4.5mm				

<b>G.</b>	<b>Bone Holding Forceps Set</b>		Each Set		
<b>1</b>	<b>Bone holding with Thread lock 0 150mm x 9mm</b>	Each			
<b>2</b>	<b>Bone holding with Thread lock 1 190mm x 10mm</b>	Each			
<b>3</b>	<b>Bone holding with Thread lock 2 240mm x 14mm</b>	Each			
<b>4</b>	<b>Bone holding with Thread lock 3 280mm x 23mm</b>	Each			
<b>5</b>	<b>Reduction forceps with points 200mm</b>	Each			
<b>6</b>	<b>Lane bone holding forceps 330mm</b>	Each			
<b>7</b>	<b>Bone holding Hey Groves 210mm</b>	Each			
<b>8</b>	<b>Bone holding Hey Groves 270mm</b>	Each			
<b>9</b>	<b>Bone holding Hey Groves 305mm</b>	Each			
<b>H.</b>	<b>Carpal Tunnel Set</b>		Each Set		
<b>1</b>	<b>Spong Holder</b>	Each			
<b>2</b>	<b>B.P Handle</b>	Each			
<b>3</b>	<b>Steven Scissor 17cm</b>	Each			
<b>4</b>	<b>Mayo scissor 16cm</b>	Each			
<b>5</b>	<b>Mezenbaum scissors 14cm</b>	Each			
<b>6</b>	<b>MC Donled</b>	Each			
<b>7</b>	<b>Watson cheyen</b>	Each			
<b>8</b>	<b>Lengen back small</b>	Each			
<b>9</b>	<b>Bowel</b>	Each			
<b>10</b>	<b>Gilipot</b>	Each			
<b>11</b>	<b>Self retaining retractor small</b>	Each			

12	Kelly forcep	Each			
13	Needle Holder	Each			
14	Adson (Tooth Forcep)	Each			
<b>I.</b>	<b>Kuntscher wire set</b>		Each Set		
1	Forcep for cerclage wire	Each			
2	Wire binding cutting plair	Each			
3	Plate Nose Parallel plair	Each			
4	Wise grip	Each			
5	Wire Cutter Small T/C	Each			
6	Wire Cutter Large T/C	Each			
7	Wire Passer	Each			
8	Wire Tightner	Each			
9	Extrauction plair	Each			
10	K-Wire	Each			
11	Tray	Each			
12	Aluminium case	Each			
<b>J.</b>	<b>Hand Surgery Equipment For Ortho &amp; Spine</b>		Each Set		
1	B.P Handle No.3	Each			
2	B.P Handle No.4	Each			
3	Tenotomy Scissor small	Each			
4	Tenotomy Scissor Medium each	Each			
5	Needle holder fine small	Each			
6	Needle Holder Medium Size	Each			

7	<b>Ragnel retractor (cat's paw)</b>	Each			
8	<b>Tendor Passer</b>	Each			
9	<b>Towel clips-5</b>	Each			
10	<b>Inkpot</b>	Each			
11	<b>Ronger fine</b>	Each			
12	<b>self-retaining retractor small</b>	Each			
13	<b>Needle suture passing various sizes</b>	Each			
14	<b>Osteotome small</b>	Each			
15	<b>Hammer small</b>	Each			
16	<b>Sponge Holder</b>	Each			
17	<b>Tooth forcep small size plain</b>	Each			
18	<b>Mets Scissor straight</b>	Each			
19	<b>Tendon freer</b>	Each			
20	<b>Bone reducing forceps small</b>	Each			
21	<b>Hand Drill</b>	Each			
22	<b>Tooth forcep small size</b>	Each			
23	<b>Mets Scissor Curved small Mets scissor curved medium</b>	Each			
24	<b>Mosquito artery forceps fine</b>	Each			
25	<b>Skin hook</b>	Each			
26	<b>Sims retractor</b>	Each			
27	<b>Freer</b>	Each			
28	<b>Army Navy</b>	Each			
29	<b>Wirecutter small</b>	Each			
30	<b>Bone cutter small</b>	Each			
31	<b>Esmarch</b>	Each			

32	Periosteal elevator small	Each			
33	Gouge small	Each			
34	Bowel kidney tray	Each			
35	Iris scissors curved	Each			
36	Iris scissors Straight	Each			
37	Humbey's knife Watson type	Each			
38	Bone holding forceps small	Each			
39	Howman's retractors small	Each			
40	Gouge small	Each			
<b>K.</b>	<b>Spine Surgery Instrument SET:</b>		Each Set		
1	Scalpel Handle for scalpel blades size 10 to 15 (length approx;16cm)	02 Nos			
2	Scalpel Handle for scalpel blades size 10 to 15 (length approx;21cm)	02 Nos			
3	Scalpel Handle for scalpel blades size 18 to 24. (length approx;12 cm)	02 Nos			
4	Dissecting scissors straight length approx. 14cm	02 Nos			
5	Dissecting scissors curved length approx. 20cm	02 Nos			
6	Operating scissors straight	02 Nos			
7	Sharp Curette: Ø length= 17 cm Working tip= round, size 2mm	02 Nos			
8	Sharp Curette: Ø length= 17 cm Working tip= round, size 4mm	02 Nos			
9	Sharp Curette: Ø length= 17 cm Working tip= round, size 10mm	02 Nos			

10	Sharp Curette: Ø length= 17 cm Working tip= round, size 12	02 Nos			
11	Sharp Curette: Ø length= 28 cm Working tip= round, size 2mm	02 Nos			
12	Sharp Curette: Ø length= 28 cm Working tip= round, size 4mm	02 Nos			
13	Sharp Curette: Ø length= 28 cm Working tip= round, size 10mm	02 Nos			
14	Sharp Curette: Ø length= 28 cm Working tip= round, size 12mm	02 Nos			
15	<b>BONE RONGEURS:</b>				
a.	Ø Length = 14 cm Working tip= straight, size 3mm	01 Nos			
b	Ø Length = 14 cm Working tip= straight, size 5mm	01 Nos			
c	Ø Length = 14 cm Working tip= straight, size 10mm	01 Nos			
d	Ø Length = 17 cm Working tip= straight, size 3mm	01 Nos			
e	Ø Length = 17 cm Working tip= straight, size 5mm	01 Nos			
f	Ø Length = 17 cm Working tip= straight, size 10mm	01 Nos			
16	<b>Bone Cutting Forceps:</b>				
a	Ø Length= 14 cm Working tip= standard, straight	02 Nos			
b	Ø Length= 17 cm Working tip= standard, straight	02 Nos			
17	<b>Cobb's Raspatory/periosteal elevator:</b>				
a	Length = 25 cm Working tip/end= 13 mm wide, slightly curved, semi-sharp	02 Nos			

<b>b</b>	<b>Length = 25 cm Working tip/end= 19 mm wide, slightly curved, semi-sharp</b>	02 Nos			
<b>c</b>	<b>Length = 25 cm Working tip/end= 25 mm wide, slightly curved, semi-sharp</b>	02 Nos			
<b>18</b>	<b>OSTEOTOME:</b>				
<b>a</b>	<b>Length = 17 – 20 cm Working tip/ end = 6mm wide , straight</b>	02 Nos			
<b>b</b>	<b>Length = 17 – 20 cm Working tip/ end = 10mm wide , straight</b>	02 Nos			
<b>c</b>	<b>Length = 17 – 20 cm Working tip/ end = 12mm wide , straight</b>	02 Nos			
<b>d</b>	<b>Length = 17 – 20 cm Working tip/ end = 15mm wide , straight</b>	02 Nos			
<b>e</b>	<b>Length = 17 – 20 cm Working tip/ end = 25mm wide , straight</b>	02 Nos			
<b>f</b>	<b>Length = 25 – 30 cm Working tip/ end = 4mm wide , straight</b>	02 Nos			
<b>g</b>	<b>Working tip/ end = 6mm wide , straight 25 – 30 cm</b>	02 Nos			
<b>h</b>	<b>Working tip/ end = 10mm wide , straight 25 – 30 cm</b>	02 Nos			
<b>i</b>	<b>Working tip/ end = 12mm wide , straight</b>	02 Nos			
<b>j</b>	<b>Working tip/ end = 15mm wide , straight 25 – 30 cm</b>	02 Nos			
<b>19</b>	<b>Kidney Bowel:</b>				
<b>a</b>	<b>Characteristics: 170 ml, stainless steel</b>	02 Nos			
<b>b</b>	<b>Characteristics: 250 ml, stainless steel</b>	02 Nos			
<b>c</b>	<b>Characteristics: 500 ml, stainless steel</b>	02 Nos			

20	<b>Instruments/Dressing Tray:</b> <b>Characteristics: 375-270</b> <b>50mm, Stainless steel</b>	02 Nos			
21	<b>Solution bowl: Characteristics: 60 – 80</b> <b>ml capacity</b> <b>160 – 180 ml capacity</b>	02 Nos			
22	<b>Wash Bowl:</b>				
a	<b>Characteristics:-</b> <b>01 Litre capacity, stainless steel</b>	02 Nos			
b	<b>02 Litres capacity, stainless steel</b>	02 Nos			
c	<b>05 Litres capacity, stainless steel</b>	02 Nos			
23	<b>dissecting Forcep:</b>				
a	<b>length: 18 – 20 cm characteristics:</b> <b>straight, blunt</b>	02 Nos			
b	<b>length: 14 – 16 cm characteristics:</b> <b>straight, slim</b>	02 Nos			
c	<b>length: 18 – 20 cm characteristics:</b> <b>straight, slim</b>	02 Nos			
24	<b><u>Tissue Forcep:</u></b>				
a	<b>length: 14 – 16 cm characteristics:</b> <b>straight working tip/end: 1- 2 teeth</b>	Each			
b	<b>length: 20 – 25 cm characteristics:</b> <b>straight working tip/end: 1 2 teeth</b>	Each			
c	<b>length: 14 – 16 cm characteristics:</b> <b>straight, slim working tip/end: 1 2 teeth</b>	Each			
d	<b>length: 18 – 20 cm characteristics:</b> <b>straight, slim working tip/end: 12 teeth</b>	Each			
25.A	<b>Needle Holder:</b>				
a	<b>Length: 10 – 12 cm</b>	Each			
b	<b>Length: 14 – 16 cm</b>	Each			

<b>c</b>	<b>Length: 18 – 20 cm</b>	Each			
<b>25.B</b>	<b>Haemostatic/Artery Forcep:</b>				
<b>a</b>	<b>Length= 10cm</b>	Each			
	<b>Characteristics= curved , standard pattern</b>				
<b>b</b>	<b>Length= 12.5 cm</b>	Each			
	<b>Characteristics= curved , standard pattern</b>				
<b>c</b>	<b>Length= 14 cm</b>	Each			
	<b>Characteristics= curved , standard pattern</b>				
<b>d</b>	<b>Length= 16 cm</b>	Each			
	<b>Characteristics= curved , standard pattern</b>				
<b>e</b>	<b>Length= 12.5 cm</b>	Each			
	<b>Characteristics= curved , delicate pattern</b>				
<b>f</b>	<b>Length= 14 cm</b>	Each			
	<b>Characteristics= curved , delicate pattern</b>				
<b>g</b>	<b>Length= 16 cm</b>	Each			
	<b>Characteristics= curved , delicate pattern</b>				
<b>h</b>	<b>Length= 18 cm</b>	Each			
	<b>Characteristics= curved , delicate pattern</b>				
<b>i</b>	<b>Length= 12.5 cm</b>	Each			
	<b>Characteristics= straight , standard pattern</b>				
<b>j</b>	<b>Length= 14 cm</b>	Each			

	<b>Characteristics= straight , standard pattern</b>				
<b>k</b>	<b>Length= 18 cm</b>	Each			
	<b>Characteristics= straight , standard pattern</b>				
<b>l</b>	<b>Length= 16 cm</b>	Each			
	<b>Characteristics= Kocher, straight , delicate pattern</b>				
	<b>Working tip/end= 1 x 2 teeth</b>				
<b>m</b>	<b>Length= 20 cm</b>	Each			
	<b>Characteristics= Kocher, straight , delicate pattern</b>				
	<b>Working tip/end= 1 x 2 teeth</b>				
<b>n</b>	<b>Length= 25 cm</b>	Each			
	<b>Characteristics= Kocher, straight , delicate pattern</b>				
	<b>Working tip/end= 1 x 2 teeth</b>				
<b>26</b>	<b>Tissue Grasping Forcep:</b>				
<b>a</b>	<b>Length = 14 cm</b>	Each			
	<b>Characteristics= straight</b>				
	<b>Working tip/end= 3 x 4 teeth</b>				
<b>b</b>	<b>Length = 16 cm</b>	Each			
	<b>Characteristics= straight</b>				
	<b>Working tip/end= 3 x 4 teeth</b>				
<b>c</b>	<b>Length = 20 cm</b>	Each			
	<b>Characteristics= straight</b>				
	<b>Working tip/end= 3 x 4 teeth</b>				

<b>27</b>	<b>Towel Clamp:</b>				
<b>a</b>	<b>Length = 5.5 cm</b>	Each			
	<b>Characteristics= curved, cross action</b>				
<b>b</b>	<b>Length = 8 cm</b>	Each			
	<b>Characteristics= curved, cross action</b>				
<b>c</b>	<b>Length = 10 cm</b>	Each			
	<b>Characteristics= curved, cross action</b>				
<b>d</b>	<b>Length = 13 cm</b>	Each			
	<b>Characteristics=curved, cross action</b>				
<b>e</b>	<b>Length = 16 cm</b>	Each			
<b>28</b>	<b>Sponge Forcep:</b>				
<b>a</b>	<b>Length= 18 cm, Straight</b>	Each			
<b>b</b>	<b>Length= 24 cm, Straight</b>	Each			
<b>29</b>	<b>Laminectomy Rongeur:</b>				
<b>a</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 18 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 2 mm wide</b>				
<b>b</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 18 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 3 mm wide</b>				
<b>c</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 18 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting jaws 4 mm wide</b>				
<b>d</b>	<b>Kerrison laminectomy rongeur</b>				

	<b>Length = 18 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 5 mm wide</b>				
<b>e</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 2 mm wide</b>				
<b>f</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 3 mm wide</b>				
<b>g</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 4 mm wide</b>				
<b>h</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 5 mm wide</b>				
<b>i</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 6 mm wide</b>				
<b>j</b>	<b>Kerrison laminectomy rongeur</b>	Each			
	<b>Length = 20 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 3 mm wide</b>				
<b>k</b>	<b>Kerrison laminectomy rongeur</b>				

	<b>Length = 20 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 4 mm wide</b>				
<b>l</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 30 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 2 mm wide</b>				
<b>m</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 30 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 3 mm wide</b>				
<b>n</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 30 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 4 mm wide</b>				
<b>o</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 30 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 5 mm wide</b>				
<b>30</b>	<b><u>Nerve Hook:</u></b>				
<b>a</b>	<b>Length= 18-20cm</b>	Each			
	<b>Working tip/end= 2mm, Probe end</b>				
<b>b</b>	<b>Length= 18-20cm</b>	Each			
	<b>Working tip/end= 3mm, Probe end</b>				
<b>c</b>	<b>Length= 18-20cm</b>	Each			
	<b>Working tip/end= 4mm, Probe end</b>				
<b>d</b>	<b>Length= 18-20cm</b>	Each			

	<b>Working tip/end= 5mm, Probe end</b>				
<b>e</b>	<b>Length= 18-20cm</b>	Each			
	<b>Working tip/end= 8mm, Probe end</b>				
<b>f</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Taylor spinal retractor:</b>				
<b>g</b>	<b>Length= 18cm</b>	Each			
	<b>Working tip/end= 30 mm wide, 70 mm deep</b>				
<b>h</b>	<b>Length= 18cm</b>	Each			
	<b>Working tip/end= 20 mm wide, 70 mm deep</b>				
<b>i</b>	<b>Length= 18cm</b>	Each			
	<b>Working tip/end= 30 mm wide, 100 mm deep</b>				
<b>30</b>	<b>McDonald Dissector/Elevator:</b>				
<b>a</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Working tip/end= 2mm wide, blunt</b>				
<b>b</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Working tip/end= 4mm wide, blunt</b>				
<b>c</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Working tip/end= 10mm wide, blunt</b>				
<b>d</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Working tip/end= 12mm wide, blunt</b>				
<b>e</b>	<b>Length= 24 – 26 cm</b>	Each			
	<b>Working tip/end= 4mm wide, blunt</b>				
<b>f</b>	<b>Length= 24 – 26 cm</b>	Each			
	<b>Working tip/end= 6mm wide, blunt</b>				

<b>g</b>	<b>Length= 24 – 26 cm</b>	Each			
	<b>Working tip/end= 10mm wide, blunt</b>				
<b>h</b>	<b>Length= 24 – 26 cm</b>	Each			
	<b>Working tip/end= 12mm wide, blunt</b>				
<b>31</b>	<b>Micro-Dissector ( Spine Surgery):</b>				
<b>a</b>	<b>Length= 18 – 20 cm</b>	02 Nos			
	<b>Working tip/end= 1mm wide, semi sharp, curved</b>				
<b>b</b>	<b>Length= 18 – 20 cm</b>	02 Nos			
	<b>Working tip/end= 2mm wide, semi sharp, curved</b>				
<b>c</b>	<b>Length= 18 – 20 cm</b>	02 Nos			
	<b>Working tip/end= 3mm wide, semi sharp, curved</b>				
<b>d</b>	<b>Length= 24 - 26 cm</b>	02 Nos			
	<b>Working tip/end= 1mm wide, semi sharp, curved</b>				
<b>e</b>	<b>Length= 24 - 26 cm</b>	02 Nos			
	<b>Working tip/end= 2mm wide, semi sharp, curved</b>				
<b>f</b>	<b>Length= 24 - 26 cm</b>	02 Nos			
	<b>Working tip/end= 3mm wide, semi sharp, curved</b>				
<b>32</b>	<b>Self-Retaining Retractors:</b>				
<b>a</b>	<b>Length = 13cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 16 mm deep, blunt</b>				
<b>b</b>	<b>Length = 13cm</b>	02 Nos			

	<b>Working tip/end = 4 x 4 prongs, 20 mm deep, blunt</b>				
<b>c</b>	<b>Length = 13cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 25 mm deep, blunt</b>				
	<b>Length = 17cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 16 mm deep, blunt</b>				
<b>d</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 20 mm deep, blunt</b>				
<b>e</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 25 mm deep, blunt</b>				
<b>f</b>	<b>Length = 20cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 16 mm deep, blunt</b>				
<b>g</b>	<b>Length = 20cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 18 mm deep, blunt</b>				
<b>h</b>	<b>Length = 20cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 25 mm deep, blunt</b>				
<b>i</b>	<b>Length = 25cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 16 mm deep, blunt</b>				
<b>j</b>	<b>Length = 25cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 18 mm deep, blunt</b>				
<b>k</b>	<b>Length = 25cm</b>	02 Nos			

	<b>Working tip/end = 4 x 4 prongs, 20 mm deep, blunt</b>				
<b>l</b>	<b>Length = 25cm</b>	02 Nos			
	<b>Working tip/end = 4 x 4 prongs, 25 mm deep, blunt</b>				
<b>m</b>	<b>Length = 25cm</b>	02 Nos			
	<b>Working tip/end = 7 x 7 prongs, 16 mm deep, blunt</b>				
<b>n</b>	<b>Length = 25cm</b>	02 Nos			
	<b>Working tip/end = 7 x 7 prongs, 18 mm deep, blunt</b>				
<b>o</b>	<b>Length = 25cm</b>	02 Nos			
	<b>Working tip/end = 7 x 7 prongs, 20 mm deep, blunt</b>				
<b>p</b>	<b>Length = 25cm</b>	02 Nos			
	<b>Working tip/end = 7 x 7 prongs, 25 mm deep, blunt</b>				
<b>33</b>	<b>Langenbeck Retractor:</b>				
<b>a</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 6 mm wide, 40 mm deep</b>				
<b>b</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 8 mm wide, 40 mm deep</b>				
<b>c</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 10 mm wide, 40 mm deep</b>				
<b>d</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 15 mm wide, 40 mm deep</b>				

e	Length = 17cm	03 Nos			
	Working Tip/end = 20 mm wide, 40 mm deep				
f	Length = 17cm	03 Nos			
	Working Tip/end = 30 mm wide, 40 mm deep				
g	Length = 17cm	03 Nos			
	Working Tip/end = 40 mm wide, 40 mm deep				
h	Length = 25cm	03 Nos			
	Working Tip/end = 40 mm wide, 40 mm deep				
i	Length = 25cm	03 Nos			
	Working Tip/end = 6 mm wide, 40 mm deep				
j	Length = 25cm	03 Nos			
	Working Tip/end = 8 mm wide, 40 mm deep				
k	Length = 25cm	03 Nos			
	Working Tip/end = 10 mm wide, 40 mm deep				
l	Length = 25cm	03 Nos			
	Working Tip/end = 15 mm wide, 40 mm deep				
m	Length = 25cm	03 Nos			
	Working Tip/end = 20 mm wide, 40 mm deep				
n	Length = 25cm	03 Nos			
	Working Tip/end = 30 mm wide, 40 mm deep				

<b>o</b>	<b>Length = 25cm</b>	<b>03 Nos</b>			
	<b>Working Tip/end = 40 mm wide, 40 mm deep</b>				
<b>34</b>	<b>Rongeurs for Intervertebral Disc (Pituitary Rongeurs):</b>				
<b>a</b>	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>b</b>	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 3mm x 12 mm</b>				
<b>c</b>	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 4mm x 12 mm</b>				
<b>d</b>	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 6mm x 12 mm</b>				
<b>e</b>	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 14 mm</b>				
<b>f</b>	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>g</b>	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				

<b>h</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>i</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>j</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>k</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>l</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>m</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>n</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>o</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>p</b>	<b>Length = 17cm</b>	02 Nos			

	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>q</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>r</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 3mm x 12 mm</b>				
<b>s.</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 4mm x 12 mm</b>				
<b>t</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 6mm x 12 mm</b>				
<b>35</b>	<b>Suction tube/ tip:</b>				
<b>a</b>	<b>Length = 25cm</b>	03 Nos			
	<b>Working tip/end = curved</b>				
<b>b</b>	<b>Length = 30cm</b>	03 Nos			
	<b>Working tip/end = curved</b>				
<b>c</b>	<b>Length = 35cm</b>	03 Nos			
	<b>Working tip/end = curved</b>				
<b>36</b>	<b>Suction Canula:</b>				
<b>a</b>	<b>Length = 12.5cm</b>	03 Nos			
	<b>Working tip/end = curved 2.5mm</b>				
<b>b</b>	<b>Length = 12.5cm</b>	03 Nos			

	<b>Working tip/end = curved 3.5mm</b>				
<b>c</b>	<b>Length = 12.5cm</b>	03 Nos			
	<b>Working tip/end = curved 5mm</b>				
<b>d</b>	<b>Length = 12.5cm</b>	03 Nos			
	<b>Working tip/end = curved 10mm</b>				
<b>e</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 2.5mm</b>				
<b>f</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 3.5mm</b>				
<b>g</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 5mm</b>				
<b>h</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 8mm</b>				
<b>i</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 10mm</b>				
<b>L</b>	<b>General Orthopaedic instrument set</b>				
<b>A</b>	<b>MonoLoc 3.5mm/ DCP/ LCP Locking Plate System Instruments Set</b>		Each Set Price		
<b>1</b>	<b>MonoLoc 3.5mm Locking Plate System Instruments Set (Empty)-PPSU</b>	Each			
<b>2</b>	<b>Drill Guide 2.6</b>	Each			
<b>3</b>	<b>Drill Bit with Stop, <math>\phi</math>2.6mm</b>	Each			
<b>4</b>	<b>Drill Bit with straight shank, <math>\phi</math>2.6mm</b>	Each			
<b>5</b>	<b>Guide Sleeve for K-Wire, <math>\phi</math>1.2mm</b>	Each			
<b>6</b>	<b>Torque-limiting Screwdriver, T15</b>	Each			

7	<b>Screw Holding Sleeve for StarDrive Screw</b>	Each			
8	<b>Screwdriver, self-retaining</b>	Each			
9	<b>Allen Key</b>	Each			
10	<b>Kirschner Wire, <math>\phi</math>1.2mm</b>	Each			
11	<b>Extraction Screw, <math>\phi</math>3.5mm</b>	Each			
12	<b>Drill Bit for Screw Head Removal</b>	Each			
13	<b>Trephine</b>	Each			
14	<b>Drill Bit, <math>\phi</math>3.5mm</b>	Each			
15	<b>Drill Bit, <math>\phi</math>2.5mm</b>	Each			
16	<b>Torx Screwdriver, with Quick Coupling</b>	Each			
17	<b>Double Drill Guide 3.5/2.5</b>	Each			
18	<b>Double Drill Sleeve 2.5</b>	Each			
19	<b>Depth Gauge, 80mm</b>	Each			
20	<b>Tap, <math>\phi</math>4.0mm</b>	Each			
21	<b>Tap, <math>\phi</math>3.5mm</b>	Each			
22	<b>T-handle with Quick Coupling</b>	Each			
23	<b>Screw Holding Sleeve for Hex Screw</b>	Each			
24	<b>Hex Screwdriver</b>	Each			
25	<b>Bone Holding Forceps, self-centering</b>	Each			
26	<b>Reduction Forceps, serrated jaws, small</b>	Each			
27	<b>Reduction Forceps with Points, small</b>	Each			
28	<b>Bending Irons</b>	Each			
<b>B</b>	<b>MonoLoc 5.0mm/ 4.5mm Locking Plate System Instruments Set</b>		Each Set Price		

1	<b>MonoLoc 5.0mm Locking Plate System Instruments Set (Empty)-PPSU</b>	Each			
2	<b>Drill Guide 4.1</b>	Each			
3	<b>Drill Bit with Stop, <math>\phi</math>4.1mm</b>	Each			
4	<b>Drill Bit with straightgt shank, <math>\phi</math>4.1mm</b>	Each			
5	<b>Guide Sleeve for K-Wire, <math>\phi</math>2.0mm</b>	Each			
6	<b>Torque-limiting Screwdriver, T25</b>	Each			
7	<b>Screw Holding Sleeve for StarDrive Screw</b>	Each			
8	<b>Screwdriver, self-retaining</b>	Each			
9	<b>Torx Screwdriver, with Quick Coupling</b>	Each			
10	<b>Extraction Screw, <math>\phi</math>5.0mm</b>	Each			
11	<b>Allen Key</b>	Each			
12	<b>Drill Bit for Screw Head Removal</b>	Each			
13	<b>Kirschner Wire, <math>\phi</math>2.0mm</b>	Each			
14	<b>Double Drill Guide 6.5/3.2</b>	Each			
15	<b>Double Drill Guide 4.5/3.2</b>	Each			
16	<b>Trephine</b>	Each			
17	<b>Drill Bit, <math>\phi</math>4.5mm</b>	Each			
18	<b>Drill Bit, <math>\phi</math>3.2mm</b>	Each			
19	<b>Depth Gauge, 90mm</b>	Each			
20	<b>T-handle with Quick Couping</b>	Each			
21	<b>Tap, <math>\phi</math>6.5mm</b>	Each			
22	<b>Tap, <math>\phi</math>4.5mm</b>	Each			
23	<b>Hex Screwdriver</b>	Each			
24	<b>Screw Holding Sleeve for Hex Screw</b>	Each			

25	<b>Reduction Forceps, serrated jaws, large</b>	Each			
26	<b>Reduction Forceps with Points, large</b>	Each			
27	<b>Bone Holding Forceps, self-centering</b>	Each			
28	<b>Bending Irons, Left</b>	Each			
29	<b>Bending Irons, Right</b>	Each			
<b>M.</b>	<b>Instrument Set for DHS/DCS</b>				
	<b>DH/DC System Instruments Set (Empty)-PPSU</b>		Each Set		
1	<b>Drill Bit, <math>\Phi</math> 3.2mm</b>	Each			
2	<b>Drill Bit, <math>\Phi</math> 4.5mm</b>	Each			
3	<b>Tap, <math>\Phi</math> 4.5mm</b>	Each			
4	<b>Tap, <math>\Phi</math> 6.5mm</b>	Each			
5	<b>T-Handle with Quick Coupling</b>	Each			
6	<b>T-Handle with Quick Coupling (Large)</b>	Each			
7	<b>Depth Gauge, 90mm</b>	Each			
8	<b>Depth Gauge, 200mm</b>	Each			
9	<b>Hex Screwdriver</b>	Each			
10	<b>Screw Holding Sleeve for Hex Screw</b>	Each			
11	<b>DC Angled Guide, 95°</b>	Each			
12	<b>DH Angled Guide, 135°</b>	Each			
13	<b>DC Triple Reamer</b>	Each			
14	<b>DH Triple Reamer</b>	Each			
15	<b>Centering Sleeve DH/DC System, short</b>	Each			
16	<b>Easyout</b>	Each			
17	<b>Tap for DH/DC Screws, length 220mm</b>	Each			

18	<b>Double Drill Sleeve 3.2</b>	Each			
19	<b>Coupling Shaft</b>	Each			
20	<b>DH/DC Wrench, for Removal of DH/DC Screws</b>	Each			
21	<b>DH/DC Impactor</b>	Each			
22	<b>DH/DC Impactor</b>	Each			
23	<b>Threaded pin, 2.5×230mm</b>	Each			
24	<b>Kirschner Wire, Φ 2.0mm</b>	Each			
25	<b>DH/DC Centering Sleeve, removable</b>	Each			
26	<b>Centering Sleeve DH/DC, long</b>	Each			
27	<b>Trephine</b>	Each			
28	<b>DH/DC Wrench, forDH/DC Screws in Titanium Alloy</b>	Each			
29	<b>Drill Bit, Φ 2.0mm, with Quick Coupling</b>	Each			
30	<b>Double Drill Guide 6.5/3.2</b>	Each			
31	<b>Double Drill Guide 4.5/3.2</b>	Each			
32	<b>Cannulated Contacting Screw</b>	Each			
33	<b>Drill Guide 4.1</b>	Each			
34	<b>Drill Bit with Stop, Φ 4.1mm</b>	Each			
35	<b>Guide Sleeve for K-Wire, Φ 2.0mm</b>	Each			
36	<b>Screw Holding Sleeve for StarDrive Screw</b>	Each			
37	<b>Torque-limiting Screwdriver, T25</b>	Each			
38	<b>Screwdriver, self-retaining</b>	Each			
39	<b>Extraction Screw, Φ 5.0mm</b>	Each			
40	<b>Allen Key</b>	Each			
41	<b>Drill Bit for Screw Head Removal</b>	Each			

42	<b>Torx Screwdriver, with Quick Coupling</b>	Each			
43	<b>Kirschner Wire, <math>\Phi</math> 2.0mm</b>	Each			
44	<b>Hex Screwdriver</b>	Each			
<b>N.</b>	<b>Expert Tibia Nail with Lid</b>		<b>Each Set Price</b>		
1	<b>Direct Measuring Scale</b>	Each			
2	<b>Guide Wire for Inner Screw <math>\Phi</math>2.8</b>	Each			
3	<b>Depth Gauge 20-100mm</b>	Each			
4	<b>Quick Coupling Fibre Handle</b>	Each			
5	<b>Allingment Rod 08mm</b>	Each			
6	<b>Allingment Rod 09mm</b>	Each			
7	<b>Allingment Rod 10mm</b>	Each			
8	<b>Allingment Rod 11mm</b>	Each			
9	<b>Hook</b>	Each			
10	<b>Step Drill Bit Q/C 6.0mm</b>	Each			
11	<b>Drill Bit Q/C 6.0mm</b>	Each			
12	<b>Positioning Rod Drill #6.0mm</b>	Each			
13	<b>Quick Coupling Drill 3.2mm Short</b>	Each			
14	<b>Quick Coupling Drill 4.2mm Short</b>	Each			
15	<b>Quick Coupling Drill 3.2mm Long</b>	Each			
16	<b>Quick Coupling Drill 4.2mm Long</b>	Each			
17	<b>Key Rod</b>	Each			
18	<b>Universal Outer Sleeve for 4.2mm</b>	Each			
19	<b>Inner Sleeve for 3.2 Yellow</b>	Each			
20	<b>Trocar Yellow 3.2</b>	Each			

21	<b>Inner Sleeve Green 4.2</b>	Each			
22	<b>Trocar Green 4.2</b>	Each			
23	<b>Shever Sleeve</b>	Each			
24	<b>Shever Trocar</b>	Each			
25	<b>Measuring Scale Black 20-100mm</b>	Each			
26	<b>Nail Extraction</b>	Each			
27	<b>Nail Extraction Shaft</b>	Each			
28	<b>Screw Space Bolt Green 5mm</b>	Each			
29	<b>Screw Space Bolt Blue 4mm</b>	Each			
30	<b>Threaded Guide Wire 3.2</b>	Each			
31	<b>Screw Space Trocar</b>	Each			
32	<b>Screw Space Inner Sleeve</b>	Each			
33	<b>Screw space Bolt Holding Fibre</b>	Each			
34	<b>Spaner</b>	Each			
35	<b>Jacob's Chuck T Handle</b>	Each			
36	<b>Screw Holding Sleeve</b>	Each			
37	<b>Screw Driver Long</b>	Each			
38	<b>Screw Driver 4.5mm Cannulated Fibre</b>	Each			
39	<b>Nail Extractor M8</b>	Each			
40	<b>Sleeve for Stabilizing Rod</b>	Each			
41	<b>Bolt Black Long</b>	Each			
42	<b>Bolt Black Short</b>	Each			
43	<b>Jig Attachment Black</b>	Each			
44	<b>E Clamp</b>	Each			
45	<b>Jig for Distal Screw with 2 Nut</b>	Each			

46	Sleeve 12.2	Each			
47	Black Jig for Proximal Screw with Bolt	Each			
48	Hammer	Each			
49	Proximal Jig	Each			
50	Bolt for Nail	Each			
51	Nail Pushing Attachment two pcs	Each			
52	Cannulated Fracture Reducer Slotted	Each			
53	Bolt Tightening Fiber handle Driver	Each			
54	Nail Extraction Rod	Each			
55	Long Jig Bar Attachment for Distal Screw	Each			
<b>O.</b>	<b>Expert Femur Nail with Lid</b>		<b>Each Set Price</b>		
1	Jig Femoral	Each			
2	Nail Alignment Fixating Bolt	Each			
3	Trocar	Each			
4	Bolt extraction shaft	Each			
5	Nail Impactor Two Pieces	Each			
6	Nail Extractor Long	Each			
7	Nail Extractor Short	Each			
8	Spanner	Each			
9	Jig Attachment Black	Each			
10	Bolt Tightener with Fiber Handle	Each			
11	Mallet	Each			
12	Nail Extractor Medium	Each			

13	<b>Guide Wire 3.2 x 400</b>	Each			
14	<b>Recon Drill Bit 6.5/4.5</b>	Each			
15	<b>Screw Driver Long</b>	Each			
16	<b>T Handle Fracture Reducer rod</b>	Each			
17	<b>Screw Holding Sleeve</b>	Each			
18	<b>Flexible Reamer Ø14</b>	Each			
19	<b>Owl cannulated Crrd</b>	Each			
20	<b>Reamer Guide Handle</b>	Each			
21	<b>Inner Guide Wire Sleeve</b>	Each			
22	<b>Direct Measuring Scale</b>	Each			
23	<b>Direct Measuring Scale</b>	Each			
24	<b>Guide Wire for Inner Screw</b>	Each			
25	<b>Hook</b>	Each			
26	<b>Screw Holder</b>	Each			
27	<b>Stabalize Rod Ø09</b>	Each			
28	<b>Stabalize Rod Ø10</b>	Each			
29	<b>Stabalize Rod Ø11</b>	Each			
30	<b>Hook</b>	Each			
31	<b>Outer Sleeve Ø 12/ Ø 08 Green</b>	Each			
32	<b>Inner Sleeve Ø 8/4.2Green</b>	Each			
33	<b>Trocar 4.2mm Green</b>	Each			
34	<b>Drill Bit 4.2mm QC Short</b>	Each			
35	<b>Drill Bit 4.2mm QC Long</b>	Each			
36	<b>Depth Gauge Long Black</b>	Each			
37	<b>Depth Gauge 20-100mm Black</b>	Each			

38	Depth Gauge 20-100mm	Each			
39	Outer Sleeve 08/06	Each			
40	Inner Trocar Ø 6mm	Each			
41	Drill Bit Ø 6.0mm	Each			
42	Drill Bit Pointed Ø 6.0mm	Each			
43	Drill Shaver Ø 6.0mm	Each			
44	Outer Sleeve Yellow 11.5/8.5	Each			
45	Inner Sleeve Yellow 8.5/3.2	Each			
46	Trocar 3.2mm	Each			
47	Q/C Fiber Handle6	Each			
48	Screw Driver	Each			
49	End Cap Screw Driver	Each			
50	Cannulated Screw Driver	Each			
51	Cannulated outer sleeve wooden	Each			
52	Cannulated Long Sleeve	Each			
53	Trocar	Each			
54	Outer Block Short Sleeve	Each			
55	Left Distal with Two Bolt	Each			
56	Right Distal with Two Bolt	Each			
57	Long Rod for Distal screw	Each			
58	E Block	Each			
59	Distal Screw Jig with Black Screw	Each			
60	Black Jig with Screw	Each			
61	Nail Stabilizer Pin 09mm	Each			
62	Nail Stabilizer Pin 10mm	Each			

63	Nail Stabilizer Pin 11mm	Each			
64	Nail Stabilizer Pin12mm	Each			
65	Nail Stabilizer Pin13mm	Each			
66	Nail Stabilizer Pin 14mm	Each			
<b>P.</b>	<b>PFN Box with Lid</b>		<b>Each Set Price</b>		
1	Plain Guide Wires Long 2.5 x 450mm	Each			
2	Threaded Guide Wires 3.2 x 400mm	Each			
3	Nail Length Gauge Cr	Each			
4	Flexible Reamer 17mm Cr	Each			
5	Entry Reamer 17mm Cr	Each			
6	6pals Fiber Handel Cannulated Driver Cr	Each			
7	Impactor for Jig (2 Pcs) Cr	Each			
8	Cannulated T. Awl Cr10603701	Each			
9	Entry Sleeve 17.5mm	Each			
10	Multi Holes Inner Sleeve for Guide Wires	Each			
11	Nail Guide for PFN	Each			
12	Nail Guide Bolt	Each			
13	Spiral Blade Cannulated Drill Bit 11mm	Each			
14	Bit Stopper	Each			
15	Spiral Blade Entry Reamer Cannulated 11mm	Each			
16	Coupling Sleeve Round T16 x 2	Each			
17	Spiral Blade yellow Sleeve Threaded T16 x 2	Each			

18	<b>Yellow Inner Sleeve for Guide Wire 11.5</b>	Each			
19	<b>Yellow Trocar 3 x 24.5mm</b>	Each			
20	<b>Slotted Hammer with fiber handle</b>	Each			
21	<b>Yellow Screw Driver Spiral Blade SW 4.5</b>	Each			
22	<b>Yellow Screw Length Gauge 80- 200</b>	Each			
23	<b>Radiolucent Anti Rotation Guide for wires</b>	Each			
24	<b>Radiolucent Drill Guide 130° with bolt</b>	Each			
25	<b>Radiolucent Drill Guide 130° with bolt for distal Screw</b>	Each			
26	<b>L-Key 12mm x 4.5mm</b>	Each			
27	<b>Screw holding Forceps</b>	Each			
28	<b>Nail Extraction Rod</b>	Each			
29	<b>Sleeve for 3.5 /5.6mm</b>	Each			
30	<b>Screw Holding Sleeve For Screw Driver</b>	Each			
31	<b>Long T Handle for spiral Blade Removal SW 4.5</b>	Each			
32	<b>6 Pals Screw Driver for locking Screw removal SW4</b>	Each			
33	<b>Solid Hex Screw Driver</b>	Each			
34	<b>Cannulated Screw Driver with fiber Handle SW4</b>	Each			
35	<b>Depth Gauge 20 - 100mm</b>	Each			
36	<b>Curved Plain Rod 2.8mm x 46mm</b>	Each			
37	<b>Drill Bit Q.C 4.0mm x 220mm</b>	Each			
38	<b>Spiral Blade Tightening wrench</b>	Each			
39	<b>Wrench 11mm</b>	Each			

40	Green Sleeve 8.1mm	Each			
41	Green Sleeve 4.1mm	Each			
42	Green Trocar 4.0mm	Each			
43	T Positioning Rod 09mm	Each			
44	T Positioning Rod 10mm	Each			
45	Short Sleeve 08mm	Each			
46	Targeted for distal Distal screw	Each			
47	Radiolucent Jig for 260-340 with bolt	Each			
48	Sleeve 8 / 6mm	Each			
49	Trocar 6mm	Each			
50	Drill Bit Q/C 6mm	Each			
51	Positioning rod Drill Q/C 6mm	Each			
52	Distal Aiming Bar	Each			
53	Radiolucent Bolt	Each			
54	Radiolucent Connecting Bolt	Each			
55	E Block	Each			
56	Radiolucent Jig for 360-420 with bolt	Each			
<b>Q.</b>	<b>REAMERS SET</b>		<b>Each Set Price</b>		
1	reamer shaft $\Phi 7.5-\Phi 8$	Each			
2	reamer shaft $\Phi 8.5-\Phi 14$	Each			
3	reamer shaft $\Phi 8.5-\Phi 14$ (standby application)	Each			
4	reamer head $\Phi 7.5$	Each			
5	reamer head $\Phi 8$	Each			

6	reamer head $\Phi 8.5$	Each			
7	reamer head $\Phi 9$	Each			
8	reamer head $\Phi 9.5$	Each			
9	reamer head $\Phi 10$	Each			
10	reamer head $\Phi 10.5$	Each			
11	reamer head $\Phi 11$	Each			
12	reamer head $\Phi 11.5$	Each			
13	reamer head $\Phi 12$	Each			
14	reamer head $\Phi 12.5$	Each			
15	reamer head $\Phi 13$	Each			
16	reamer head $\Phi 13.5$	Each			
17	reamer head $\Phi 14$	Each			
18	guide pin olive $\Phi 2.5/1000$	Each			
19	special instrument	Each			
20	Quick copping Handle (Whip) the handle	Each			
21	Depth gauge	Each			
22	guide wire impactor	Each			
23	instrument case	Each			
R.	<b>AUSTIN MOORE HIP PROSTHESIS INSTRUMENT SET</b>		Each Set		
1	<b>ALUMINIUM CONTAINER</b>	Each			
2	<b>SPATUL CURETTE</b>	Each			
3	<b>FEMORAL HEAD EXTRACTOR</b>	Each			
4	<b>FEMORAL HEAD IMPACTOR</b>	Each			
5	<b>UNIVERSAL DRIVER AND</b>	Each			

	<b>EXTRECTOR</b>				
<b>6</b>	<b>MOORE MORTISING CHISEL</b>	Each			
<b>7</b>	<b>MODULAR RASP BAR</b>	Each			
<b>8</b>	<b>MOORE RASP SHORT</b>	Each			
<b>9</b>	<b>MOORE RASP LONG</b>	Each			
<b>10</b>	<b>NARROW MOORE RASP</b>	Each			
<b>11</b>	<b>NARROW MOORE RASP LONG</b>	Each			
<b>S.</b>	<b>EXTERNAL FIXATOR LARGE INSTRUMENT SET</b>		Each Set		
<b>1</b>	<b>External Fixator (Large) Instruments Set (Empty)-PPSU</b>	Each			
<b>2</b>	<b>Combination Wrench, SW11</b>	Each			
<b>3</b>	<b>Ratchet Wrench, SW11</b>	Each			
<b>4</b>	<b>T-Wrench, SW11</b>	Each			
<b>5</b>	<b>T-Clip</b>	Each			
<b>6</b>	<b>Trocar <math>\phi</math>3.5, short</b>	Each			
<b>7</b>	<b>Drill Sleeve 5.0/3.5, short</b>	Each			
<b>8</b>	<b>Drill Sleeve 6.0/5.0, threaded, short</b>	Each			
<b>9</b>	<b>Trocar <math>\phi</math>3.5, long</b>	Each			
<b>10</b>	<b>Drill Sleeve 5.0/3.5, long</b>	Each			
<b>11</b>	<b>Drill Sleeve 6.0/5.0, threaded, long</b>	Each			
<b>12</b>	<b>Drill Bit, <math>\phi</math>3.5mm</b>	Each			
<b>13</b>	<b>Handle for Drill Sleeve</b>	Each			
<b>T.</b>	<b>External Fixator (Medium) Instruments Set</b>		Each Set Price		

<b>1</b>	<b>External Fixator (Medium) Instruments Set (Empty)-PPSU</b>	Each			
<b>2</b>	<b>Combination Wrench, SW8</b>	Each			
<b>3</b>	<b>T-Wrench, SW8</b>	Each			
<b>4</b>	<b>T-Clip</b>	Each			
<b>5</b>	<b>Trocar, <math>\phi</math>2.5mm</b>	Each			
<b>6</b>	<b>Drill Sleeve 4.0/2.5</b>	Each			
<b>7</b>	<b>Drill Sleeve <math>\phi</math>4.0, with Thread</b>	Each			
<b>8</b>	<b>Drill Bit, <math>\phi</math>2.0mm</b>	Each			
<b>9</b>	<b>Drill Bit, <math>\phi</math>3.5mm</b>	Each			
<b>10</b>	<b>Handle for Drill Sleeve</b>	Each			
<b>U.</b>	<b>BIPOLAR INSTRUMENT SET</b>		Each Set Price		
<b>1</b>	<b>Acetabular Reamer size 42</b>	Each			
<b>2</b>	<b>Acetabular Reamer size 44</b>	Each			
<b>3</b>	<b>Acetabular Reamer size 46</b>	Each			
<b>4</b>	<b>Acetabular Reamer size 48</b>	Each			
<b>5</b>	<b>Acetabular Reamer size 50</b>	Each			
<b>6</b>	<b>Acetabular Reamer size 52</b>	Each			
<b>7</b>	<b>Acetabular Reamer size 54</b>	Each			
<b>8</b>	<b>Acetabular Reamer size 56</b>	Each			
<b>9</b>	<b>Acetabular Reamer size 58</b>	Each			
<b>10</b>	<b>Acetabular Reamer size 60</b>	Each			
<b>11</b>	<b>Acetabular Reamer handle</b>	Each			
<b>12</b>	<b>Caliper</b>	Each			

13	<b>Screw Holder</b>	Each			
14	<b>Acetabular Drill</b>	Each			
15	<b>Screw Depth Gauge</b>	Each			
16	<b>Trial Handle</b>	Each			
17	<b>Alignment Guide</b>	Each			
18	<b>Bipolar Trial Cup size 38(Blue)</b>	Each			
19	<b>Bipolar Trial Cup size 40(Blue)</b>	Each			
20	<b>Bipolar Trial Cup size 42(Blue)</b>	Each			
21	<b>Bipolar Trial Cup size 44(Blue)</b>	Each			
22	<b>Bipolar Trial Cup size 46(Black)</b>	Each			
23	<b>bipolar Trial Cup size 48(Black)</b>	Each			
24	<b>bipolar Trial Cup size 50(Black)</b>	Each			
25	<b>bipolar Trial Cup size 52(Black)</b>	Each			
26	<b>bipolar Trial Cup size 54(Black)</b>	Each			
27	<b>bipolar Trial Cup size 56(Black)</b>	Each			
28	<b>Pressing sleeve Size 22</b>	Each			
29	<b>Pressing sleeve Size 28</b>	Each			
30	<b>Acetabular Inserter Handle</b>	Each			
31	<b>Cement Impactor (Acetabulum Side)</b>	Each			
32	<b>Acetabular Cement Pusher Blue</b>	Each			
33	<b>Universal Screwdriver</b>	Each			
34	<b>Screw drill Guide</b>	Each			
35	<b>Soft drill 3.2 x 200</b>	Each			
36	<b>Soft drill 3.2 x 210</b>	Each			
37	<b>Liner Impactor size 22 (Black)</b>	Each			

38	<b>Liner Impactor size 28 (Green)</b>	Each			
39	<b>Acetabular Cup Inserter</b>	Each			
40	<b>Acetabular Trial Cup size 42</b>	Each			
41	<b>Acetabular Trial Cup size 44</b>	Each			
42	<b>Acetabular Trial Cup size 46</b>	Each			
43	<b>Acetabular Trial Cup size 48</b>	Each			
44	<b>Acetabular Trial Cup size 50</b>	Each			
45	<b>Acetabular Trial Cup size 52</b>	Each			
46	<b>Acetabular Trial Cup size 54</b>	Each			
47	<b>Acetabular Trial Cup size 56</b>	Each			
48	<b>Acetabular Trial Cup size 58</b>	Each			
49	<b>Acetabular Trial Cup size 60</b>	Each			
50	<b>Femoral Canal Reamer size 0/00</b>	Each			
51	<b>Femoral Canal Reamer size 1/2</b>	Each			
52	<b>Femoral Canal Reamer size 3/4</b>	Each			
53	<b>Femoral Canal Reamer size 5/6</b>	Each			
54	<b>Curved Hohman Retractor</b>	Each			
55	<b>T Handle for Reamer</b>	Each			
56	<b>Proximal Femur Seal</b>	Each			
57	<b>Neck Trial size 00/2</b>	Each			
58	<b>Neck Trial size 03</b>	Each			
59	<b>Neck Trial size 4/5</b>	Each			
60	<b>Femoral Head Trial size 22/0</b>	Each			
61	<b>Femoral Head Trial size 22/+4</b>	Each			
62	<b>Femoral Head Trial size 22/+8</b>	Each			

63	<b>Femoral Head Trial size 28/-4</b>	Each			
64	<b>Femoral Head Trial size 28/0</b>	Each			
65	<b>Femoral Head Trial size 28/+4</b>	Each			
66	<b>Femoral Head Trial size 28/+8,</b>	Each			
67	<b>Femoral Head Impactor</b>	Each			
68	<b>Curve Rasp</b>	Each			
69	<b>Cemented stem Broaches size 00</b>	Each			
70	<b>Cemented stem Broaches size 0</b>	Each			
71	<b>Cemented stem Broaches size 1</b>	Each			
72	<b>Cemented stem Broaches size 2</b>	Each			
73	<b>Cemented stem Broaches size 3</b>	Each			
74	<b>Cemented stem Broaches size 4</b>	Each			
75	<b>Cemented stem Broaches size 5</b>	Each			
76	<b>Stem Impactor</b>	Each			
77	<b>Hammer</b>	Each			
78	<b>Calcar Planner</b>	Each			
79	<b>Cork Screw</b>	Each			
80	<b>Osteotome Resection Guide</b>	Each			
81	<b>Stem Restrictor Stem Handle</b>	Each			
82	<b>Stem Inserter</b>	Each			
83	<b>Stem Impactor/extractor</b>	Each			
84	<b>Offset Box Osteotome</b>	Each			
85	<b>Universal Impactor</b>	Each			
86	<b>Broach Handle</b>	Each			

V.	ILIZAROV SET		Each Set Price		
1	Container	Each			
2	Wire tightener	Each			
3	Round wire tightener	Each			
4	wire cutter plier	Each			
5	T - Wrench	Each			
6	socket Wrench	Each			
7	Ratchet Wrench	Each			
8	Drill Guide Ø 3.2 mm	Each			
9	Drill Guide Ø 3.5 mm	Each			
10	Drill Guide Ø 4.5 mm	Each			
11	Sleeve Guide 200789	Each			
12	Open wrench and Circular End 10 mm	Each			
13	Open wrench and Circular End 12 - 13 mm	Each			
14	Osteotome 10 mm	Each			
15	Drill with Stopper Ø 3.2 x 200 mm 085331	Each			
16	Drill with Stopper Ø 3.5 x 200 mm 085348	Each			
17	Drill with Stopper Ø 4.5 x 200 mm	Each			
W	Standard/ Orthopaedic General Instrument Set:		Each Set Price		
	1. General Considerations				

.	<b>Material: High-grade surgical stainless steel (AISI 304 / 316)</b>				
.	<b>Finish: Polished, matte or passivated</b>				
.	<b>Sterilization: Autoclavable at 121–134°C</b>				
.	<b>Ergonomics: Instruments with ratchets, serrations, and handle grips for firm hold</b>				
#	<b>Instrument</b>				
1	<b>Osteotome: Approx.Size/Length: 4, 6, 8, 10, 12, 16mm Purpose: Cutting or shaping bone</b>	Each			
2	<b>Chisel: Approx.Size/Length: 6, 8, 10, 12 mm Purpose: Bone carving / sculpting</b>	Each			
3	<b>Bone cutter (Hand) Approx.Size/Length: 25–30 cm Purpose: Cutting long bones / joint cuts</b>	Each			
4	<b>Wire Cutters Approx.Size/Length: 12–20 cm Purpose: Cutting K-wires / cerclage wires</b>	Each			
5	<b>Bone Holding Forceps Approx.Size/Length: 15–25 cm Purpose: Reduce / hold bone fragments</b>	Each			
6	<b>Reduction Clamps Approx.Size/Length: 12–20 cm Purpose: Fracture reduction &amp; stabilization</b>	Each			
7	<b>Towel / Tissue Forceps Approx.Size/Length: 12–20 cm Purpose: Soft tissue handling</b>	Each			
8	<b>Kocher Forceps Approx.Size/Length: 15–18 cm Purpose: Heavy tissue clamping</b>	Each			

9	<b>Hohmann Retractor</b> Approx.Size/Length: 10–30 cm Purpose: Soft tissue / bone exposure	Each			
10	<b>Army-Navy Retractor</b> Approx.Size/Length: 15–25 cm Purpose: Superficial soft tissue retraction	Each			
11	<b>Farabeuf Retractor</b> Approx.Size/Length: 12–20 cm Purpose: Small incision retraction	Each			
12	<b>Weitlaner Self-Retaining Retractor</b> Approx.Size/Length: 10–15 cm Purpose: Hands-free tissue hold	Each			
13	<b>Periosteal Elevator</b> Approx.Size/Length: 15–25 cm Purpose: Elevate periosteum / soft tissue	Each			
14	<b>Cobb Elevator</b> Approx.Size/Length: 10–20 cm Purpose: Leverage bone fragments	Each			
15	<b>Bone Probe</b> Approx.Size/Length: 15–25 cm Purpose: Explore fractures / canal	Each			
16	<b>Depth Gauge</b> Approx.Size/Length: 12–20 cm Purpose: Measure screw lengths	Each			
17	<b>Ruler / Caliper</b> Approx.Size/Length: 15–30 cm Purpose: Bone / implant measurement	Each			
18	<b>Drill Bits</b> Approx.Size/Length: 2.0–6.5 mm Purpose: For screws / pins	Each			
19	<b>T-Handle / Chuck</b> Approx.Size/Length: 15–25 cm Purpose: Hold drill bits or K-wires	Each			

20	<b>Tap</b> Approx.Size/Length: 2.5–5.0 mm Purpose: Prepare threaded holes for screws	Each			
21	<b>Screwdrivers (Flat / Cross)</b> Approx.Size/Length: 12–20 cm Purpose: Plates & screws	Each			
22	<b>K-Wires</b> Approx.Size/Length: 1.0–2.0 mm Purpose: Temporary / definitive fixation	Each			
23	<b>Wire Bender</b> Approx.Size/Length: 12–15 cm Purpose: Shape K-wires / cerclage wires	Each			
24	<b>Wire Tensioner</b> Approx.Size/Length: 12–20 cm Purpose: Apply tension to wires	Each			
25	<b>Mallet</b> Approx.Size/Length: 250–500 g Purpose: Impact osteotomes / chisels	Each			
26	<b>Needle Holder</b> Approx.Size/Length: 15 cm Purpose:Suture placement	Each			
27	<b>Scissors (Tissue / Wire)</b> Approx.Size/Length: 12–18 cm Purpose:Cutting soft tissue / wires	Each			
28	<b>Suction Tip</b> Approx.Size/Length: 10–15 cm Purpose:Blood / irrigation suction	Each			
29	<b>Bone Hook</b> Approx.Size/Length: 15–25 cm Purpose:Manipulate bone fragments	Each			
30	<b>Periosteal Elevator (Curved)</b> Approx.Size/Length: 15–20 cm Purpose: Elevate periosteum around curved bones	Each			

31	<b>Bone Awl / Pin Inserter</b> Approx.Size/Length: 12–20 cm Purpose: Make pilot holes for K-wires	Each			
32	<b>Langenbeck Retractor</b> Approx.Size/Length: 15–25 cm Purpose: Soft tissue retraction	Each			
33	<b>Tension Band Wire Passer</b> Approx.Size/Length: 12–20 cm Purpose: Cerclage wire placement	Each			
34	<b>Pin Cutter / Heavy Wire Cutter</b> Approx.Size/Length: 15–20 cm Purpose: Cut larger wires / pins	Each			
36	<b>Sponge / Dressing Forceps</b> Approx.Size/Length: 15–20 cm Purpose: Holding gauze / sponge	Each			
37	<b>Periosteal Elevator (Small)</b> Approx.Size/Length: 12–15 cm Purpose: Fine bone exposure / pediatrics	Each			
38	<b>Bone Levers</b> Approx.Size/Length: 12–20 cm Purpose: Manipulate bone fragments	Each			
39	<b>Reduction Pins</b> Approx.Size/Length: 2.0–3.0 mm Purpose: Temporary fracture fixation	Each			
40	<b>Towel Clips</b> Approx.Size/Length: 10–15 cm Purpose: Secure drapes / small tissue	Each			
II	<b>Surgical OT</b>		Each Set Price		
1	<b>Clip Applicator</b>	Each			
2	<b>Laposcopic Grasping Forceps (Youheen, Medium jaw)</b>	Each			

<b>3</b>	<b>Suction Irrigation Canula (Small )</b>	Each			
<b>4</b>	<b>Suction Irrigation Canula (Large )</b>	Each			
<b>5</b>	<b>Scisor</b>	Each			
<b>6</b>	<b>Marryland Forceps</b>	Each			
<b>7</b>	<b>Cystoscope rigid forcep</b>	Each			
<b>8</b>	<b>Cystoscope flexible biopsy forceps</b>	Each			
<b>9</b>	<b>Cuttig sets for OT and Ward</b>	Each			
<b>10</b>	<b>Dressing Drum</b>	Each			
<b>11</b>	<b>Mediastinoscopy Set</b>	Each			
<b>12</b>	<b>Abraham Pleural Biopsy Needle</b>	Each			
<b>III</b>	<b>Instruments for A&amp;E</b>		Each Set Price		
<b>1</b>	<b>Artery Forceps</b>	Each			
<b>2</b>	<b>Mosquito Artery Forceps</b>	Each			
<b>3</b>	<b>Mayo Scissor</b>	Each			
<b>4</b>	<b>Suture Cutting Scissor</b>	Each			
<b>5</b>	<b>Needle Holder</b>	Each			
<b>6</b>	<b>Plan Forceps</b>	Each			
<b>7</b>	<b>Tooth Forceps</b>	Each			
<b>8</b>	<b>BP Handle 04no</b>	Each			
<b>9</b>	<b>BP Handle 07no</b>	Each			
<b>10</b>	<b>Allis Tissue Forceps</b>	Each			
<b>11</b>	<b>Babocok Forceps</b>	Each			
<b>12</b>	<b>Right Angle Retractor</b>	Each			
<b>13</b>	<b>Catpw Retractor</b>	Each			
<b>14</b>	<b>Spon Holding Forceps</b>	Each			

## LOT No. 2

LOT No. 2					
<b>* Note</b>	<b><i>Unit price and Box price will be quoted for each item and set.</i></b>				
<b>IV</b>	<b>INSTRUMENTS FOR GYNAE</b>		Each Set		
<b>A.</b>	<b>Cesarean Section (C-Section) SET</b>		Each Set		
<b>B.</b>	<b>Total Abdominal Hestectomy ( T.A.H Set)</b>		Each Set		
<b>C</b>	<b>Veginal Hestectomy (VH SET)</b>		Each Set		
<b>D</b>	<b>Vasico Vaginal Fistula V.V.F Set</b>		Each Set		
<b>E</b>	<b>Dailatation And Curetation D.N.C Set</b>		Each Set		
<b>F</b>	<b>Debrainment And Dressing ( D/D) SET</b>		Each Set		
<b>G</b>	<b>Miscelenous Instrument</b>		Each Set		
<b>H</b>	<b>Diagnostic Laproscopic Instruments</b>		Each Set		
<b>I</b>	<b>Laparoscopy And Hysteroscopy Instruments</b>		Each Set		
<b>J</b>	<b>Colposcopy Instrument</b>		Each Set		
<b>K</b>	<b>E&amp;C Set</b>		Each Set		
<b>A</b>	<b>CESAREAN SECTION (C-Section) SET</b>		Each Set Price		
<b>1</b>	<b>Sponge holder</b>	Each			
<b>2</b>	<b>Green army tag Forceps</b>	Each			
<b>3</b>	<b>Aliss Forceps</b>	Each			
<b>4</b>	<b>Artery forceps (medium Curved)</b>	Each			
<b>4</b>	<b>Artery forceps (medium Straight)</b>	Each			
<b>5</b>	<b>Towel clamps</b>	Each			
<b>6</b>	<b>Needle holder ( different size)</b>	Each			

7	Scissors Straight	Each			
7	Scissors Curved surgeon	Each			
8	Plain forceps	Each			
9	Tooth forceps	Each			
10	Knife handle 4size	Each			
11	Doyen's n 's Retractor	Each			
12	Kidney tray Medium	Each			
13	Bowels small size	Each			
14	Bowel medium size	Each			
15	Tray for instruments	Each			
<b>B</b>	<b>TOTAL ABDOMINAL HESTECTOMY ( T.A.H Set)</b>		Each Set Price		
1	Curved clamps Large	Each			
2	Straights clamps Large	Each			
3	Allississ	Each			
4	Lanz's forcep	Each			
5	Artery forcep (curved medium size)	Each			
6	Artery forcep (straight medium size)	Each			
7	Towel clamps	Each			
8	Sponge holder	Each			
9	Deaver Retractor Different Size (Large)	Each			
10	Deaver Retractor Different Size (Medium)	Each			
11	Deaver Retractor Different Size (small)	Each			
12	Babcock forcep	Each			

<b>13</b>	<b>Myomectomy screw</b>	Each			
<b>14</b>	<b>Gut suction tap e' guard</b>	Each			
<b>15</b>	<b>Knife handle 4 size</b>	Each			
<b>16</b>	<b>Needle holder</b>	Each			
<b>17</b>	<b>Plain forcep</b>	Each			
<b>18</b>	<b>Tooth forcep</b>	Each			
<b>19</b>	<b>Scissors (straight, medium)</b>	Each			
<b>20</b>	<b>Scissors (curved medium)</b>	Each			
<b>21</b>	<b>Kidney tray</b>	Each			
<b>22</b>	<b>Bowels small size</b>	Each			
<b>23</b>	<b>Bowel medium size</b>	Each			
<b>24</b>	<b>Tray for instruments</b>	Each			
<b>C</b>	<b>VEGINAL HESTECTOMY (VH SET)</b>		Each Set Price		
<b>1</b>	<b>Sponge holder</b>	Each			
<b>2</b>	<b>Volsellum</b>	Each			
<b>3</b>	<b>Robert clamps curved large</b>	Each			
<b>4</b>	<b>Straight clamps large</b>	Each			
<b>5</b>	<b>Alisiss</b>	Each			
<b>6</b>	<b>Artery forcep curved (medium)</b>	Each			
<b>7</b>	<b>Artery forcep curved (small)</b>	Each			
<b>8</b>	<b>Towel clamp</b>	Each			
<b>9</b>	<b>Langing bag</b>	Each			
<b>10</b>	<b>Uterine sound</b>	Each			
<b>11</b>	<b>Kidney tray large</b>	Each			

12	Knife handle 4 size	Each			
13	Plain forcep	Each			
14	Tooth forcep	Each			
15	Needle holder	Each			
16	Scissors (surgeon curved fine tip)	Each			
17	Scissors straight	Each			
18	Sim speculum small size	Each			
19	Sim speculum large size	Each			
20	Bowels small size	Each			
21	Bowel large size	Each			
22	Tray for instruments	Each			
23	Czerny's retractor	Each			
<b>D</b>	<b>VASICO VAGINAL FISTULA V.V.F SET</b>		Each Set Price		
1	Sponge holding forceps	Each			
2	Allis	Each			
3	Artery forcep Curved (Medium)	Each			
3	Artery forcep Curved (Small)	Each			
4	Towel Clamps	Each			
5	Needle holder different size	Each			
6	Plain forcep	Each			
7	Fine scissors straight	Each			
8	Fine scissors curved	Each			
9	Kidney Tray large	Each			
10	Bowels small Size	Each			

11	<b>Fine Tooth forcep</b>	Each			
12	<b>Langing bag small size</b>	Each			
13	<b>Sim speculum small size</b>	Each			
14	<b>Mosquito artery forcep</b>	Each			
15	<b>Sponge holder small size</b>	Each			
16	<b>Nasal speculum</b>	Each			
17	<b>Czeney's retractors</b>	Each			
<b>E</b>	<b>DAILATATION AND CURETATION (D.N.C SET)</b>		Each Set Price		
1	<b>Kidney Tray large</b>	Each			
2	<b>Sponge holder</b>	Each			
3	<b>Utrine sound</b>	Each			
4	<b>Sim speculum Different size (small)</b>	Each			
4	<b>Sim speculum Different size (large)</b>	Each			
5	<b>Wolsellum</b>	Each			
6	<b>Bowels small size</b>	Each			
7	<b>Currete different size</b>	Each			
8	<b>Dailator 4-8size</b>	Each			
9	<b>Taneculum</b>	Each			
10	<b>Ovum forcep</b>	Each			
11	<b>Plain forcep</b>	Each			
12	<b>Needle holder</b>	Each			
13	<b>IUCD retrieval hook</b>	Each			
12	<b>Scissor (curved, straight)</b>	Each			

<b>F</b>	<b>DEBRAINMENT AND DRESSING ( D/D) SET</b>		Each Set Price		
<b>1</b>	<b>Sponge holder</b>	Each			
<b>2</b>	<b>Allis Forceps</b>	Each			
<b>3</b>	<b>Artery forcep Curved (medium)</b>	Each			
<b>3</b>	<b>Artery forcep Curved (small)</b>	Each			
<b>4</b>	<b>Towel Clamps</b>	Each			
<b>5</b>	<b>Needle holder different size</b>	Each			
<b>6</b>	<b>Plain forcep</b>	Each			
<b>7</b>	<b>Knife handle 4 size</b>	Each			
<b>8</b>	<b>Knife handle 3 size</b>	Each			
<b>9</b>	<b>Kidney Tray medium size</b>	Each			
<b>10</b>	<b>Bowels small Size</b>	Each			
<b>11</b>	<b>Tooth forcep</b>	Each			
<b>G</b>	<b>MISCELENOUS INSTRUMENT</b>		Each Set Price		
<b>1</b>	<b>Babcock</b>	Each			
<b>2</b>	<b>Czarney's Retractors</b>	Each			
<b>3</b>	<b>Knife handle 4 size</b>	Each			
<b>4</b>	<b>Knife handle 3 size</b>	Each			
<b>5</b>	<b>Outlet forcep or baby holding forcep</b>	Each			
<b>6</b>	<b>Right angel forcep</b>	Each			
<b>7</b>	<b>Intestinal clamp</b>	Each			
<b>8</b>	<b>Non crushing</b>	Each			
<b>9</b>	<b>Scissors curved</b>	Each			

10	Scissors straight	Each			
11	Plain forcep	Each			
12	Artery forcep	Each			
13	Sim speculum	Each			
14	Curete small size	Each			
15	Dilatators 6 size	Each			
16	Dilatator 7 size	Each			
17	Dilatator 8 size	Each			
18	Sponge holder small size	Each			
19	Polypectomy forcep	Each			
20	Green Army	Each			
21	Curved clamp large	Each			
22	Straight clamp large	Each			
23	Fine surgeon scissors	Each			
24	Cusces speculum small	Each			
25	Cusces speculum	Each			
26	Proctoscup	Each			
27	Punch biopsy forceps	Each			
28	Duck Speculum	Each			
29	Spatula	Each			
30	Clinching Forceps (Length of Jaw 26mm	Each			
31	Maryland Forceps with Cross Tooth Pattern (Length of Jaw 17mm)	Each			
32	Maryland Forceps (Length of Jaw 21mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.	Each			

33	<b>Johan Forceps (Length of Jaw 21mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
34	<b>Manhes Forceps (Length of Jaw</b>	Each			
35	<b>18mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
36	<b>Clinching Forceps (Length of Jaw 26mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
37	<b>Hysteroscopy Micro Scissor S/S Single Action, Semi Acion, Semi rigid 5Fr. 40cm HE18-23338(Length of Jaw 26mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
38	<b>Hysteroscopy Micro Scissor S/S Single Action, Semi Acion, Semi rigid 5Fr. 40cm HE18-23338(Length of Jaw 26mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
39	<b>BR Surgical Scissor for Hysteroscope (Flexible scissor, single action, 5FRx40cm)</b>	Each			
40	<b>Angle cutting loop Electrode, dimension : 19/22 Fr (Part No. STS - HYS-340-03</b>	Each			
41	<b>Knot Tier: size 5mm, working length 36cm, for extracorporeal knotting.</b>	Each			
42	<b>Needle holder with parrrto Jaw:- Straight handle, with ratchet size 5mm, length33cm</b>	Each			
<b>H</b>	<b>DIAGNOSTIC LAPROSCOPIC INSTRUMENTS</b>		Each Set Price		
<b>1</b>	<b>Kidney Tray</b>	Each			
<b>2</b>	<b>Sponge holder</b>	Each			

3	Utrine sound	Each			
4	Sim speculum different size	Each			
5	Volsellum	Each			
6	Bowels small size	Each			
7	Currete different size	Each			
8	Dailator	Each			
9	Taneculum	Each			
10	Ovum forcep	Each			
11	Plain forcep	Each			
12	Needle holder	Each			
13	Knife handle No.4	Each			
14	Knife handle No.3	Each			
15	Towel clamp	Each			
16	Artery forcep	Each			
17	Tooth forcep	Each			
18	Needle Forceps	Each			
19	Rubin's Cannula	Each			
I.	<b>HYSTEROSCOPY INSTRUMENTS</b>		Each Set		
1	Hysteroscopy Scissor (Flexible)	Each			
2	Hysteroscopy Grasper (Flexible)	Each			
3	Resectoscopic Loops (size 22)	Each			
4	Resectoscopic Rolling Ball (Size 22)	Each			
6	Resectoscope	Each			
7	Guide Wire	Each			

<b>8</b>	<b>Hysteroscopy (Inner + Outer) Sheet</b>	Each			
<b>9</b>	<b>Cystoscopye Flexible Biopsy Forcep</b>	Each			
<b>10</b>	<b>Hysteroscopy Knife (Size 22)</b>	Each			
<b>J.</b>	<b>LAPAROSCOPY INSTRUMENTS</b>		Each Set Price		
<b>1</b>	<b>Disposable port</b>	Each			
<b>2</b>	<b>Ellices Grasper OR Claw Forceps</b>	Each			
<b>3</b>	<b>Youhan Forceps</b>	Each			
<b>4</b>	<b>Varese Needle</b>	Each			
<b>5</b>	<b>Trocar Spring action 5mm, 10mm</b>	Each			
<b>K</b>	<b>Colposcopy Instrument</b>		Each Set Price		
<b>1</b>	<b>Sponge Holding Forceps</b>	Each			
<b>2</b>	<b>Cuscos's Speculum</b>	Each			
<b>3</b>	<b>Endo Cervical Speculum</b>	Each			
<b>4</b>	<b>Tenaculum</b>	Each			
<b>5</b>	<b>Plain Forceps</b>	Each			
<b>6</b>	<b>Lateral Vaginal Wall retractor</b>	Each			
<b>7</b>	<b>Endocervical Curette</b>	Each			
<b>8</b>	<b>Needle Holder</b>	Each			
<b>K</b>	<b>E&amp;C Set</b>		Each Set Price		

**NO: 05 : LOT-HOSPITAL FURNITURE**

SNO.	ITEM NAME WITH MTL-HMC REQUIRED SPECIFICATIONS	Firm Quoted Specifications	Reference/ Annexure/Page No.
1	<b>DEPARTMENT</b>		
1.1	<b>Patient Bed (Electric) Option A</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 2100-2200mm		
8	Width (external) 995mm-1000mm		
9	Height 400mm-860mm		
10	Mattress Platform 1990x870mm		
11	Load Bearing 200 kg & above		
12	Electric linear actuator system (4 pcs) for back rest (70° & above), knee rest (25° & above), height adjustment (450mm-900mm), trendelenburg (17° & above), reverse trendelenburg (17° & above), angle indicator for back position (0-100), Cardiac chair position, bed extension 200mm & above, nurse control, call bell,		
13	Weighing system		
14	CPR instant release		
15	Side rails, c-series, Polypropylene (PP) 4 pcs		
16	Headside side rails with integrated control and warning lights (PP) Locked & unlocked		
17	Foot and side rails (Locked & unlocked) with glass holder, LCD screen and wireless charger (atleast 15 watt)		

18	Head board and foot board removeable C-series (PP) with bumper wheels		
19	X-ray cassette holder at back rest		
20	Detachable bed platform with integrated mattress retainer		
21	Double side castors with directional wheel function 5 inches		
22	Dedictaed break (Locked & unlocked)		
23	IV pole 4 hooks 1 set		
24	IV pole prvisions 4 pcs		
25	hooks for drainage 2 pcs		
26	Monkey pole holes 32mm 2 pcs		
27	Hand controller 1 pc		
28	High density water proof mattress with leather cover with 150mm thickness minimum		
29	Oxygen cylinder holder		
30	Bed frame stainless steel (14 guage or less) epoxy coating		
<b>1.2</b>	<b>Patient Bed (Electrical) Option B</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 2000-2100mm		
8	Width (external) upto 1000-1050mm		
9	Height 450mm-750mm		
10	Mattress Platform 1900x920mm		

11	Load Bearing 200 kg & above		
12	Electric linear motor (3 pcs) for back rest (70° & above), knee rest (45° & above), height adjustment (450mm & above)		
13	Patent angle indicator for back rest position 0-100°		
14	Hand controller (1 pc )		
15	Hardshell castors 5 inches (4 pcs) (Locked & unlocked)		
16	Side rails extra height, Polypropylene (PP) (1 pc)		
17	Head board and foot board removeable C-series (PP) with bumper wheels 65 size		
18	Detachable bed platform with integrated mattress retainer		
19	IV pole minimum 4 hooks 1 set		
20	IV pole provisions minimum 4 pcs		
21	hooks for drainage minimum 2 pcs		
22	Oxygen cylinder holder		
23	Trapeze Scoket (optional)		
24	Monkey pole (optional)		
25	Basket (optional)		
26	High density water proof mattress with leather cover with 150mm thickness minimum		
26	Bed frame stainless steel (14 guage or less) epoxy coating		
<b>1.3</b>	<b>Patient Bed (Electrical) Option C</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		

7	Size, Length 2000-2100mm		
8	Width (external) upto 1000-1050mm		
9	Height 450mm-750mm		
10	Mattress Platform 1900x920mm		
11	Load Bearing 200 kg & above		
12	Electric linear actuator system (4 pcs) for back rest (70° & above), knee rest (45° & above), height adjustment (450mm-800mm), trendelenburg (15° & above), reverse trendelenburg (15° & above), angle indicator for back rest (0-100°) 2 pcs		
13	Hand controller (1 pc )		
14	Hardshell castors 5 inches (4 pcs) (Locked & unlocked)		
15	Foldable Side rails, Polypropylene (PP) (1 set)		
16	Head board and foot board removeable (PP) with bumper wheels 65 size		
17	Bed platform (PP) with integrated mattress retainer		
18	IV pole 4 hooks minimum 1 set		
19	IV pole provisions 4 pcs minimum		
20	hooks for drainage 2 pcs minimum		
21	Monkey pole (optional)		
22	Trapeze Scoket (optional)		
23	Basket (optional)		
24	High density water proof mattress with leather cover with 150mm thickness minimum		
25	Oxygen cylinder holder 1 pc		
26	Bed frame stainless steel (14 guage or less) epoxy coating		
<b>1.4</b>	<b>Patient Bed (Manual) Option A</b>		
1	Model:		
2	Make:		

3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 2120-2200mm		
8	Width (external) upto 1000-1050mm		
9	Height 470mm-750mm		
10	Mattress Platform 1900x920mm		
11	Load Bearing 200 kg & above		
12	Manual Cranks (4 pcs) for back rest (0°-90° & above), knee rest (35-45°), height adjustment (470mm-900mm), trendelenburg (0-15° & above), reverse trendelenburg (0-15° & above)		
13	Hard shell castors 5 inches (4 pcs) (Locked & unlocked)		
14	Foldable Side rails, ProEgro-Handle (1 set)		
15	Head board and foot board removeable (PP) with bumper wheels 65 size		
16	Detachable bed platform with integrated mattress retainer		
17	IV pole 4 hooks minimum 1 set		
18	IV pole provisions 4 pcs minimum		
19	hooks for drainage 2 pcs minimum		
20	Monkey pole (optional)		
21	Trapeze Scket (optional)		
22	Basket (optional)		
23	High density water proof mattress with leather cover with 150mm thickness minimum		
24	Oxygen cylinder holder 1 pc		
25	Bed frame stainless steel (14 guage or less) epoxy coating		

<b>1.5</b>	<b>Patient Bed (Manual) Option B</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 2130-2200mm		
8	Width (external) upto 1000-1050mm		
9	Height 430mm-750mm		
10	Mattress Platform 1900x920mm		
11	Load Bearing 200 kg & above		
12	Manual Cranks (4 pcs) for back rest (0°-90 & above), knee rest (35-45), height adjustment (470mm-900mm), trendelenburg (0-15° & above), reverse trendelenburg (0-15° & above), Angle indicator for back rest position (0-100) 2 pcs		
13	Hardshell castors 5 inches (4 pcs) (Locked & unlocked)		
14	Extra height Side rails, Polypropylene (PP) (1 set)		
15	Head board and foot board removeable (PP) with bumper wheels		
16	IV pole 4 hooks minimum 1 set		
17	IV pole provisions 4 pcs minimum		
18	hooks for drainage 2 pcs minimum		
19	Utility shelf (optional)		
20	Trapeze Scoket (optional)		
21	High density water proof mattress with leather cover with 150mm thickness minimum		
22	Oxygen Cylinder holder 1 pc		

23	Bed frame stainless steel (14 guage or less) epoxy coating		
<b>1.6</b>	<b>Patient Bed (Manual) Option C</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 2100-2200mm		
8	Width (external) upto 1000-1050mm		
9	Height 430mm-750mm		
10	Mattress Platform 1900x920mm		
11	Load Bearing 200 kg & above		
12	Manual Cranks (3 pcs) for back rest (70° & above), knee rest (35° & above), height adjustment (450mm-900mm)		
13	Covered castors 5 inches (4 pcs) (Locked & unlocked)		
14	Foldable Side rails (1 set) with ProErgo-handle, high grade stainless steel (16 guage or less) epoxy coated		
15	Head board and foot board removeable (PP) with bumper wheels 65 size		
16	IV pole 4 hooks minimum 1 set		
17	IV pole prvisions 4 pcs minimum		
18	hooks for drainage 2 pcs minimum		
19	Monkey pole (optional)		
20	Basket (optional)		
21	Trapeze Scoket (optional)		
22	High density water proof mattress with leather cover with 150mm		

	thickness minimum		
23	Oxygen cylinder holder 1 pc		
24	Bed frame stainless steel (14 guage or less) epoxy coating		
<b>1.7</b>	<b>Patient Bed (Manual) Option D</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 2100-2200mm		
8	Width (external) upto 1000-1050mm		
9	Height 400mm-750mm		
10	Mattress Platform 1900x900mm		
11	Load Bearing 200 kg & above		
12	Manual Cranks (2 pcs) for back rest (70° & above), knee rest (35° & above)		
13	Covered castors 5 inches (4 pcs) (Locked & unlocked)		
14	Foldable Side rail (1 set)		
15	Head board and foot board (PP) with bumper wheels 65 size		
16	IV pole 4 hooks minimum 1 set		
17	IV pole provisions 4 pcs minimum		
18	Hooks for drainage 2 pcs minimum		
19	Basket (optional)		
20	High density water proof mattress with leather cover with 150mm thickness minimum		

21	Oxygen cylinder holder 1 pc		
22	Bed frame stainless steel (14 guage or less) epoxy coating		
<b>1.8</b>	<b>Children Bed (Electrical) Option A</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 1900-2050mm		
8	Width (external) upto 800-900mm		
9	Height 450mm-790mm		
10	Mattress Platform 1700x800mm		
11	Hand controller 1 pc		
12	Electric linear actuator system (4 pcs) ffor back rest (0°-90 & above), knee rest (35-45°), height adjustment (470mm-900mm), trendelenburg (0-15° & above), reverse trendelenburg		
13	PP Platform with integrated retainer		
14	Double sided castors 5 inches (4 pcs) (with central lock)		
15	Side rails Aluminium alloy OR Equivalent (1 set) with 12 or more columns for extra protection		
16	Head board and foot board (PP)		
17	IV pole 4 hooks minimum 1 set		
18	IV pole prvisions 4 pcs minimum		
19	Hooks for drainage 2 pcs minimum		
20	Electric CPR		
21	High density water proof mattress with leather cover with 150mm		

	thickness minimum		
22	Call bell (optional)		
<b>1.9</b>	<b>Children Bed (Manual) Option A</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length (external) 1950-2100mm		
8	Width (external) upto 900-1050mm		
9	Height 450mm-790mm		
10	Mattress Platform 1700x800mm		
11	Crank (3 pcs) for back rest (0-90 & above), knee rest (35-45), height adjustment (470mm-900mm)		
12	Hardshell side castors 5 inches (4 pcs)		
13	Aluminium alloy Side rails foldable with 15 columns and above with extra protection (1 set)		
14	Head board and foot board (PP) with safe lock system		
15	IV pole 4 hooks minimum 1 set		
16	IV pole provisions 4 pcs minimum		
17	Hooks for drainage 2 pcs minimum		
18	High density water proof mattress with leather cover with 150mm thickness minimum		
19	Base frame 14 guage or less, Epoxy coated or stainless steel		
<b>1.10</b>	<b>Children Bed (Manual) Option B</b>		
1	Model:		

2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 1800-1950mm		
8	Width (external) upto 900-1000mm		
9	Height 450mm-790mm		
10	Mattress Platform 1700x800mm		
11	Manual Crank (2 pcs) for backrest (0-90 & above), knee rest (35-45),		
12	Double side castors 5 inches (4 pcs)		
13	Side rails full length adjustable up/down (1 set)		
14	Head board and foot board (plastic bed ends)		
15	IV pole 4 hooks minimum 1 set		
16	IV pole provisions 4 pcs minimum		
17	Hooks for drainage 2 pcs minimum		
18	High density water proof mattress with leather cover with 150mm thickness minimum		
19	Buffer Air spring 4 pcs		
20	Base frame 14 guage or less, Epoxy coated or stainless steel		
21	Hooks for drainage 2 pcs minimum		
<b>1.11</b>	<b>Baby Crib Option A</b>		
1	Model:		
2	Make:		
3	Country of Origin:		

4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 850-900mm		
8	Width (external) upto 480-550mm		
9	Height 750mm-970mm		
10	Gas Spring, height adjustment (650mm-980mm), trendelenburg (10° & above), reverse trendelenburg (10° & above)		
11	Bassinet 1 pc		
12	Double side castors 100 Size (4 pcs)		
13	Mattress (5cm or above thickness)		
<b>1.12</b>	<b>Baby Crib Option B</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 800-900mm		
8	Width (external) upto 480-550mm		
9	Height 750mm-1000mm		
10	Adjustable Air Sprine, Reverse trendelenburg (15° & above)		
11	Bassinet 1 pc		
12	Covered castors 3 inches (4 pcs)		
13	Mattress (5cm or above thickness)		
14	IV pole 1 set minimum		

15	IV pole provision 2 pcs minimum		
16	Utility Basket		
17	Base frame 14 guage or less, Epoxy coated or stainless steel		
<b>1.13</b>	<b>Patient Examination Table (Electric) Option A</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 1900-2100mm		
8	Width (external) 600mm-700mm		
9	Height 400mm-950mm		
10	Adjustable Arm support		
11	Gas spring		
12	Electric motor (1 pcs) for back plate up/down (35° & above), for leg plate up/down (35° & above), height adjustment (450mm & above)		
13	Double sided Castors 3 inches 4 pcs		
14	Break pedals 4 pcs		
15	Hand controller 1 pc		
16	Manual Operaor 1 pc		
17	Base frame 14 guage or less, Epoxy coated or stainless steel		
18	High density water proof mattress with leather cover with 150mm thickness minimum		
<b>1.14</b>	<b>Patient Examination Table (Electric) Option B</b>		
1	Model:		

2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 1900-2100mm		
8	Width (external) 600mm-700mm		
9	Height 400mm-950mm		
10	Electric motor (1 pcs) for back plate up/down (35° & above),, height adjustment (450mm & above)		
11	Double sided Castors 3 inches 4 pcs		
12	Break pedals 2 pcs		
13	Hand controller 1 pc		
14	Manual Operaor 1 pc		
15	Face pillow 1 pc		
16	Tissue holder 1 pc		
17	Base frame 14 guage or less, Epoxy coated or stainless steel		
18	High density water proof mattress with leather cover with 150mm thickness minimum		
<b>1.15</b>	<b>Patient Examination Table (Hydraulic)</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		

7	Size, Length 1900-2100mm		
8	Width (external) 600mm-700mm		
9	Height 400mm-950mm		
10	Hydraulic pump (1 pcs) for back plate up/down (40° & above), height adjustment (400mm & above)		
11	Castors covered 5 inches 4 pcs		
12	Hydraulic pedals 2 pcs		
13	Adjustable air Sprine 2 pcs		
14	Toilet paper holder 1 pc		
15	Base frame 14 guage or less, Epoxy coated or stainless steel		
16	High density water proof mattress with leather cover with 150mm thickness minimum		
<b>1.16</b>	<b>Patient Examination Table (Manual) Option A</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 1900-2100mm		
8	Width (external) 600mm-700mm		
9	Height 600mm-950mm		
10	Anti slip feet cover 4 pcs		
11	Lever for adjusting back rest (65° & above) 1 pc		
12	Base frame 12 guage or less, Epoxy coated or stainless steel		
13	High density water proof mattress with leather cover with 150mm thickness minimum		

<b>1.17</b>	<b>Patient Bed Obstetric (Electric)</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 2100-2200mm		
8	Width (external) 995mm-1150mm		
9	Height 400mm-960mm		
10	Mattress 1 set		
11	Pull handle 2 pcs		
12	Electric motor for back rest (70° & above), height adjustment (300mm & above), trendelenburg (17° & above),		
13	Leg support 2 pcs		
14	Foot support 2 pcs		
15	Stainless steel basin 1 pc		
16	Castor 6 inches 1 pc		
17	Instruction Manual 01 pc		
18	High density water proof mattress with leather cover with 150mm thickness minimum		
19	Base frame 12 guage or less, Epoxy coated or stainless steel		
20	Hand Remote control 1 pcs		
<b>1.18</b>	<b>Operating Table (Electric - Hydraulic)</b>		
1	Model:		
2	Make:		

3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 2100-2200mm		
8	Width (external) 995mm-1150mm		
9	Height 400mm-1100mm		
10	Mattress 1 set		
11	Waist support 2 pc		
12	Heavy duty multi facet electric motor for trendelenburg (20° & above), reverse trendelenburg (20° & above), Lateral tilt left/right (20° & above), head plate up/down (50° & above), back plate up/down (40° & above), leg plate up/down (80° & above), kidney bridge up (100mm or above), horizontal sliding C type arm (300 mm & above), flex (100° & above), reflex (200° & above) ,		
13	Shoulder support 2 pcs		
14	Leg support 2 pcs		
15	Armrest 2 pcs		
16	Anesthesia screen 1 pc		
17	Joint adapter 01 pc		
18	Fixator 3 pcs		
19	Modular table top and unified interfaces		
20	Head board, leg board and back board adjustable and match arbitrarily according to surgical requirement		
21	Head and leg boards are interchangeable.		
22	Hand Remote control 1 pcs		
<b>1.19</b>	<b>Operating Table (Electric) Option A</b>		
1	Model:		

2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 1950-2100mm		
8	Width (external) 500mm-700mm		
9	Height 600mm-1100mm		
10	Mattress 1 set		
11	Bed frame 1 pc		
12	Heavy duty multi facet electric motor for trendelenburg (20° & above), reverse trendelenburg (20° & above), Lateral tilt left/right (20° & above), head plate up/down (30° & above), back plate up/down (40° & above), leg plate up/down (15° & above), kidney bridge up (100mm or above), horizontal sliding C type arm (300 mm & above), flex (100° & above), reflex (200° & above)		
13	Shoulder support 2 pcs		
14	Leg support 2 pcs		
15	Arm holder 2 pcs		
16	Anesthesia screen frame 1 pc		
17	Foot Support 2 pcs		
18	Sliding block 8 pcs		
19	Spanner 3 pcs		
20	Hand Remote control 1 pcs		
<b>1.20</b>	<b>Operating Table (Electric) Option B</b>		
1	Model:		
2	Make:		
3	Country of Origin:		

4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size, Length 1950-2100mm		
8	Width (external) 500mm-700mm		
9	Height 600mm-1000mm		
10	Mattress 1 set		
11	Bed frame 1 pc		
12	Heavy duty Electric motor for trendelenburg (20° & above), reverse trendelenburg (20° & above), Lateral tilt left/right (20° & above), head plate up/down (30° & above), back plate up/down (20° & above), leg plate horizontal positioning (80° & above), kidney bridge up (100mm or above), horizontal sliding C type arm (300 mm & above)		
13	Shoulder holder 2 pcs		
14	Leg support 2 pcs		
15	Arm holder 2 pcs		
16	Anesthesia screen frame 1 pc		
17	Foot Support 2 pcs		
18	Sliding block 8 pcs		
19	Spanner 5 pcs		
20	Hand Remote control 1 pcs		
<b>1.21</b>	<b>Bedside Table Option A</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		

6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 600mm & above		
8	Width (external) 500mm & above		
9	Height 850mm or above		
10	Topguard rail, Aluminum alloy		
11	Drawer 1 pc		
12	Cabinet 1 pc		
13	Casters 4 pcs		
14	Side pull-up Writing board 1pc		
<b>1.22</b>	<b>Bedside Table Option B</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 600mm & above		
8	Width (external) 500mm & above		
9	Height 850mm or above		
10	Polypropylene (PP)		
11	Drawer 1 pc		
12	Cabinet 1 pc		
13	Casters 4 pcs		
<b>1.23</b>	<b>Bedside Table Option C</b>		
1	Model:		

2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 600mm & above		
8	Width (external) 500mm & above		
9	Height 850mm or above		
10	Stainless steel fame 14 gauge		
11	Drawer 1 pc		
12	Cabinet 1 pc		
13	Casters 3 inches with locks 4 pcs		
14	Polypropylene PP material water proof		
<b>1.24</b>	<b>Overbed Table Option A</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 900mm & above		
8	Width (external) 450mm & above		
9	Height 800mm or above		
10	Airspring for height adjustment		
11	Polypropylene table top with cup holder		

12	Casters wheels 4 pcs		
<b>1.25</b>	<b>Overbed Table Option B</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 900mm & above		
8	Width (external) 450mm & above		
9	Height 800mm or above		
10	Airspring for height adjustment		
11	MDF table top		
12	3 inches Double sided Casters wheels 4 pcs		
13	Safety belts 2		
<b>1.26</b>	<b>Overbed Table Option C</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 900mm & above		
8	Width (external) 450mm & above		
9	Height 800mm or above		

10	Airspring for height adjustment		
11	Base frame 12 guage or less, Epoxy coated or stainless steel		
12	Double sided 3 inches Casters wheels 4 pcs		
13	Safety belts 2		
<b>1.27</b>	<b>Patient Trolley (Hydraulic)</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length external 1850 mm & above		
8	Width (external) 700 mm & above		
9	Height adjustbale 600-900 mm or above		
10	Side rail, adjustable Half length. 4 coulmns		
11	Back rest (0-60), Height Adjustment 600-900mm		
12	Base frame 12 guage or less, Epoxy coated or stainless steel		
13	Double sided 5 inches Casters 4 pcs		
14	Safety belts 2 pcs		
<b>1.28</b>	<b>Patient Transport Trolley</b>		
1	Model:		
2	Make: Imported		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		

6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length external 2200 mm & above		
8	Width (external) 770 mm & above		
9	Height X-ray back rest adjustable 550-900 mm, X-ray Platform adjustable 600-910 mm		
10	Mattress PU 80mm or above thickness		
11	Castors 8 inch central locking system 4 pcs		
12	Hydraulic pumps 2 pcs		
13	IV pole 4 hooks or more 1 set		
14	Safety belts 2 pcs		
15	X-ray Translucent 1 set		
16	Integrated wall bumper wheels		
17	Back Angel Monitor 2 pcs		
18	5-speed Foldable guardrail		
19	Foot pedals 1 set		
20	Base frame 12 guage or less, Epoxy coated or stainless steel		
21	5th directional wheel 1 pc		
22	Bottom cover PP 1 pc		
23	Oxygen Tank holder		
24	Bottom cover PP 1 pc		
25	Pluggable mobile IV pole 1 set		
26	Debris Basket 1pc		
27	Foot board & Monitor holder 1pc		
28	Trendelenburg (15° & above), reverse trendelenburg (15° & above), for back rest (70° & above), knee rest (45° & above), height adjustment (500mm & above)		
<b>1.29</b>	<b>Stretcher Trolley</b>		

1	Model:		
2	Make: Local		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length external 2000 mm & above		
8	Width (external) 560 mm & above		
9	Height adjustable 370-1000 mm		
10	Side rail, adjustable guardrails Nylon. 2 pcs		
11	Thickened Sponge water proof PVC mattress 1 pc		
12	Base frame 12 gauge or less, Epoxy coated or stainless steel		
13	Double sided 5 inches Casters 6 pcs		
14	Safety belts 2 pcs		
15	Telescopic IV pole 1 pc		
16	Stretcher Fastening lock 1pc		
17	Oxygen cylinder holder 1 pc		
<b>1.30</b>	<b>Wheel Chair</b>		
1	Model:		
2	Make: Local		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size 1100 x 700 x 920mm & above		

8	Base frame 12 guage or less, Epoxy coated or stainless steel		
9	Double sided Casters 4 pcs front wheel 6 inches back wheels 12 inches rubber covered noise free		
10	Central lock		
11	Safety belt		
12	Foot shels 2 pcs foldable		
<b>1.31</b>	<b>IV Stand</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 1300 mm & above		
8	IV pole outer Tube 1000 mm Stainless steel		
9	IV pole inner Tube 1200 mm Stainless steel IV hooks 4 minimum		
10	Base heavy A class Plastic with double sided 3 inches castor wheels 4 pcs		
<b>1.32</b>	<b>Crash Cart/Emergency Trolley</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 750mm & above		

8	Width (external) 475mm & above		
9	Height 950mm or above		
10	Stainless steel fame 14 gauge		
11	Drawer 4 pc		
12	Cabinet 1 pc		
13	Casters 3 inches with locks 4 pcs		
14	Polypropylene PP material water proof		
15	Defebriator shelf 1 pc		
16	Sliding side shelf 1 pc		
17	Writing board 1 pc		
18	CPR board 1 pc		
19	IV pole 4 hooks 1 pc		
20	Oxygen cylinder holder 1 pc		
21	Trash bin 1 pc		
22	Sealed handle 1 pc		
23	Sharp bin 1 pc		
<b>1.33</b>	<b>Instrument Trolley</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 700mm & above		
8	Width (external) 450mm & above		

9	Height 900 mm or above		
10	Stainless steel frame 12 gauge		
11	Casters 3 inches with locks 4 pcs		
12	Shelves stainless steel 3 pcs		
<b>1.34</b>	<b>Laundry Trolley Option A</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 700 mm & above		
8	Width (external) 600 mm & above		
9	Height 850 mm or above		
10	Stainless steel frame 12 gauge, 8 columns base platform		
11	Casters 3 inches with locks 4 pcs		
12	Heavy duty cloth double side parachute, water proof, leak proof		
<b>1.35</b>	<b>Laundry Trolley Option B</b>		
1	Model:		
2	Make:		
3	Country of Origin:		
4	Country of Manufacturer:		
5	Post Warranty Series & Maintenance Percentage		
6	<b>TECHNICAL SPECIFICATIONS</b>		
7	Size (external) Length 800 mm & above		

8	Width (external) 600 mm & above		
9	Height 860 mm or above		
10	Stainless steel frame 12 gauge containing two identical bins, 8 columns base platform		
11	Casters 3 inches with locks 4 pcs		
12	Heavy duty cloth double side parachute, water proof, leak proof		

**FOR SINGLE STAGE TWO ENVELOPES ITEMS**

**THE FOLLOWING CRITERIA WAS FINALIZED BY THE COMMITTEE AND TECHNICAL EXPERTS FOR SNO: 06: LOT-OFFICE FURNITURE.**

<b>Technical Evaluation Criteria</b>			
<b>Submission of any false, bogus, fake, forged, fabricated, or tampered document, found at any time during or after successful bidding shall result in disqualification of the bidder from the bidding process. Furthermore, the concerned authorities shall initiate appropriate legal and administrative actions, including a minimum penalty of three (03) years blacklisting and forfeiture of the bid security.</b>			
		<b>Mandatory Requirements</b>	
	1	Verified FBR last three years Income tax returns	<b>Mandatory</b>
	2	Verified Sales tax returns last 01 year	<b>Mandatory</b>
	3	SECP current active registration	<b>Mandatory</b>
	4	KPRA	<b>If applicable</b>
	5	PNRA	<b>If applicable</b>
	6	Active tax payer list verifiable from FBR online portal	<b>Mandatory</b>
	7	Fully functional Office without biomedical workshop at Peshawar alone.	<b>Mandatory</b>
	8	The PEC Registration of the firm shall be mandatory.	<b>Mandatory</b>
	9	Lowest Bid Certificate (as per format with the BSDs)	<b>Mandatory</b>
	10	Comprehensive Warranty of 01 year replacement with a brand new on next working day shall be provided as mandatory.	<b>Mandatory</b>
<b>NOTE: Every bidder can score once in every criteria not exceeding the maximum allocated marks. If a bidder scores zero marks in any of the listed criteria except the mandatory criteria, he will not lose his rights for participation in the bidding process.</b>			

<b>Technical Evaluation Criteria for OFFICE FURNITURE items for FY 2026-27</b>			
<b>S. No.</b>	<b>Description of Variables</b>	<b>MARKS Breakup</b>	<b>Maximum Marks allocated</b>
<b>A</b>	<b>Product Evaluation Parameters</b>		
<b>1</b>	<b>Conformance to the specification</b>		
	Fully compliance with the required technical specifications as per Statement of Requirement.	<b>Mandatory</b>	
<b>1.1</b>	<p><b>Conformance to the technical specification subject to the sample provision and assessment. (Marks will be given to the samples on below criteria).</b></p> <p>Total compliance with specification given in statement of Requirement subject to technical assessment by the End-User alongwith the technical evaluation Committee based on ergonomics, physical durability, material, quality &amp; maintenance and aesthetics.</p> <p><b>Assessing samples will be a comprehensive review to ensure durability and functionality of materials, structure integrity, ergonomics and finish quality.</b></p> <p><b>1. Wood furniture sample assesment will also include Moisture content, Cracks, Smooth surface finishes.</b></p> <p><b>2. Metal furniture sample assessment will also include welding points for gaps or weak spots &amp; rust free/ resist frame, Cracks, Smooth surface finishes and low testing.</b></p> <p><b>3. Fabric/mesh sample assessment will also include quality, durability and performance testing.</b></p>	<b>26</b>	<b>26</b>
<b>1.2</b>	Non-compliance to above mentioned point No. 1.1 of this criteria will considered as technically non-responsive and hence no marks will be given to the quoted item.	<b>00</b>	
<b>2</b>	<b>Manufacturer Performance Quality Certificates</b>		<b>12</b>
<b>2.1</b>	Valid ISO 9001 Quality Management System certificate from Pakistan National Accreditation Council (PNAC) accredited bodies or from International Accreditation Forum (IAF) Accredited Bodies.	<b>04</b>	

<b>2.2</b>	Valid ISO 14001 Environmental certificate from Pakistan National Accreditation Council (PNAC) accredited bodies or from International Accreditation Forum (IAF) Accredited Bodies.	<b>04</b>	
<b>2.3</b>	Valid ISO 45001 Occupational Health & Safety Certificate from Pakistan National Accreditation Council (PNAC) accredited bodies or from International Accreditation Forum (IAF) Accredited Bodies.	<b>04</b>	
<b>3</b>	<b>After Sale Past Performance</b>		<b>18</b>
<b>3.1</b>	Four marks for each satisfactory performance certificate (objectively verifiable) of the firm / bidder on letterhead or signed and stamped by Principal Accounting Officer on behalf of the public institution / department for the quoted item supported by Supply order/Purchase order. The item should be in active service for at-least last 02 years or more. (03 Certificates)	<b>12</b>	
<b>3.2</b>	Two marks for each satisfactory performance certificate (objectively verifiable) of the firm / bidder on letterhead signed and stamped by Principal Accounting Officer on behalf of private institution / department for the quoted item supported by Supply order/Purchase order. (Institution/department must be registered with SECP). The items should be in active service for at-least last 02 years or more. (03 Certificates)	<b>06</b>	
<b>4</b>	<b>Warranty</b>		
<b>4.1</b>	Warranty Period as mentioned in the technical specifications.	<b>Mandatory</b>	
<b>5</b>	The bidder will have to give valid proof of being manufacturer / importer / authorized agent in the form of objectively verifiable supporting documents.	<b>Mandatory</b>	
<b>6</b>	<b>Firm / Bidder Financial Strength / Certificate</b> The marks will be allocated according to the last three years Audited Balance Sheet Duly attested by registered Chartered Accounting firm.		<b>10</b>
<b>6.1</b>	PKR 801 million and above	<b>10</b>	
<b>6.2</b>	PKR 701-800 Million	<b>08</b>	
<b>6.3</b>	PKR 501-700 Million	<b>06</b>	
<b>6.4</b>	PKR 400-500 Million	<b>04</b>	
<b>7</b>	<b>Human Resources/Technical Staff</b>		<b>14</b>

7.1	Skilled Diploma courses from Technical Education and Vocational Training Authority (TEVTA) Government of Pakistan in relevant field. Valid attested Diploma/Certificate must be submitted. (Two marks for each certificate). The credentials should be verifiable through possible means including but not limited to company organogram, payrolls, bank statements of minimum 01 year etc.	08	
7.2	Allied supporting staff in the form of Sales and Marketing, Finance Department and/or R&D. (02 marks for each). (03 Certificates) The credentials should be verifiable through possible means including but not limited to company organogram, payrolls, bank statements of minimum 01-year etc.	06	
<b>8</b>	<b>Office / Workshop facility</b>		<b>10</b>
8.1	Fully functional Office without biomedical workshop at Peshawar alone is mandatory.	<b>Mandatory</b>	
8.2	Fully functional Office along with well-equipped biomedical workshop (verifiable through estate agreements and physical verification if so desired) at Islamabad, Lahore, Karachi and Peshawar.	<b>10</b>	
8.3	Fully functional Office along with well-equipped biomedical workshop (verifiable through estate agreements and physical verification if so desired) at Islamabad, Lahore and Peshawar.	<b>08</b>	
8.4	Fully functional Office along with well-equipped biomedical workshop (verifiable through estate agreements and physical verification if so desired) at Islamabad and Peshawar.	<b>06</b>	
8.5	Fully functional Office along with well-equipped biomedical workshop (verifiable through estate agreements and physical verification if so desired) at Peshawar alone.	<b>04</b>	
09	<b>List Major Components/parts of the Inventory</b> readily available in the warehouse anywhere in Pakistan. The list of such spare parts duly verifiable through import documents and/or local warehouse logs shall be provided. Details shall be submitted with technical bid.	<b>10</b>	<b>10</b>
	<b>Total Score of the Firm / Bidder Evaluation Parameters</b>		<b>100</b>

**Passing Marks shall be 70 out of 100. Technical Evaluation weight-age shall be 70% and financial weight-age shall be 30% in single stage two envelope procedures (KPPRA Rule 6 2 b) and according to KPPRA ACT 2 c i. (best evaluated bid)**

Then financial bids shall be evaluated according to the formula as under (70/30%)

**Lowest Cost Offered**

Price Offered by the Firm to be  
Evaluated  $\times 100 \times 0.30$

SNO: 06	LOT-	OFFICE FURNITURE SPECIFICATIONS	Firm's Quoted Specifications
<b>01</b>	<b>EXECUTIVE CHAIRS</b>		
		· Professional dual function ergonomic high back leather chair with adjustable padded arms	
		· Thick Padded contour seats and back with built in lumbar support	
		· One touch pneumatic seat height adjustment	
		· Dual function control	
		· Back height adjustment	
		· Padded height and width adjustment arms	
		· Heavy duty base	
		· Dimensions: 46 inch	
		· Height 27.25inch	
		· Width 27.5 inch	
		· Seat dimension: height 20.25 inch x width 19.5 inch x depth 5 inch	
		· Back dimension: 20.5 inch x width 26.25 inch x height 5 inch. thcik	
<b>02.</b>	<b>EXECUTIVE OFFICE TABLE</b>		
		Size: length 1982 mm x width 1066 mm x height 762 mm, structure made f best quality uv sheet , 03 drawers on both sides, best quality handle , lock and channel for drawers , high quality finishing	
<b>2.1</b>	<b>OFFICE TABLE (LARGE)</b>	Size: length 1829 mm x width 914 mm x height 762 mm, structure made of best quality Shesham venboard , 03 drawers on one sides, best quality	

	handle , lock and channel for drawers , high quality Polish finishing	
<b>2.2</b>	<b>OFFICE TABLE (SMALL)</b> Size: length 1524 mm x width 914 mm x height 762 mm, structure made of best quality Shesham venboard , 03 drawers on one sides, best quality handle , lock and channel for drawers , high quality Polish finishing .	
<b>03</b>	<b>03 SEATER PATIENT BENCHES WITH BACK SUPPORT.</b>	
	· 18 Gauge stainless steel bench + 16gauge MS Pipe installed under the seat.	
	· Dimension sapn: 1772 x 790 x 810 hmm	
	· Seat height: 400 mm, heavy duty	
<b>04</b>	<b>COMPUTER TABLE:</b>	
	· Width : 762 mm, length 1371 mm x height 762 mm	
	· Structure made of Shesham ven board with 01 drawer, 01 CPU box and Mouse tray. best quality handle , lock and channel for drawers , high quality Polish finishing	
<b>05</b>	<b>COMPUTER CHAIR:</b>	
	Revolving Chair hydraulic with best quality heavy duty base and caster wheel Cushioned with best quality foam and cloth or leatherite. Back height adjustment, Padded height and width adjustment and standard size	
<b>06</b>	<b>OFFICE CHAIR REVOLVING :</b>	
	· High back (700 mm) , leatherette seat & back with molded foam cushion , lockable tilting mechanism , pneumatic height adjustment , five leg heavy duty base with heavy duty twin caster & cushion with best quality leather or fabrics pads on arms, Gaslift feature, standard size imported quality	
<b>07</b>	<b>EASY CHAIR:</b>	
	Standard size, Structure made of 18 gauge iron steel pipe, seat & back	

	cushioned with best quality foam & cloth, arm made of shesham wood high polish finishing. Legs must be properly covered with heavy duty shoes.	
<b>08</b>	<b>VISITORS SOFA (3-SEATER) :</b>	
	3-seater sofa standard size, frame made of heavy duty wood. Seat made of 4 inch and back cushioned with 3 inch heavy duty best quality foam and with high quality leatherite .	
<b>09</b>	<b>VISITORS SOFA (1-SEATER) :</b>	
	01-seater sofa standard size, frame made of heavy duty wood. Seat made of 4 inch and back cushioned with 3 inch heavy duty best quality foam and with high quality leatherite .	
<b>10</b>	<b>STEEL CUPBOARD:</b>	
	· 22 Gauge full, having 04 shelves,	
	· Size: Height 1828.79 mm, width 914.39 mm , dimension 609.59 mm	
	· Two lockable doors with heavy duty lock and handle	
	· Central partition (Inside shelves)	
<b>11</b>	<b>WOODEN CUPBOARD:</b>	
	· Size: height 1828. 79 mm, width 1219.19 mm, breadth 609.59 mm	
	· Four shelves with central partition with or with out lockable drawer.	
	· Doors: 02: lockable doors with heavy duty lock and handle	
	· frame made of high quality acacia wood while rest Structure made of good quality Lasani lamination	
<b>12</b>	<b>Sofa Cumbed: (Three Seater)</b>	
	· Longer Service life	
	· Termite resistance	
	· Dimensional accuracy, standard size , seat and back cushioned with heavy duty best quality foam and leatherite or fabrics	

	Quality finishing	
<b>13</b>	<b>Baby Cot:</b>	
	Material : Iron	
	Size: 147x76x109cm	
	Product: baby cot dimensions	
	Painting: Environmental finish	
	Overall Size: 147x76*109cm	
	Color Options: Natural, White, Espresso, Cherry, Black or equivalent	
	Matching Age: New born to 6years	
	Gender: Boys, Girls	
	Weight: 38KGs	
	Additional product features : Universal Castors	
	Mattress Included	
<b>14</b>	<b>Baby Carry Cot: Carry babies from Labour Room to Nursery</b> Weight & Dimensions Maximum Child Weight (9 kg) Dimensions (cm) (LxWxH)60x39x48 General Specifications Age Group New Borns (0-12 months) Type Carry Cots Maximum Recommended Age (yrs 1)	
<b>15</b>	Pharmacy Racks specialized storage units, made of durable powder-coated steel with a 14-26 gauge thickness, designed for medicine storage with, , a 7-foot height, 6 shelves, and a 100 kg weight capacity, adjustable shelves for versatile inventory management	
<b>16</b>	Safe (Locker) 70kg Structure and Material Weight: 70 kg. Construction: High-grade, heavy-duty steel with fireproof insulation.	

17	<p>Table Top Glass per Sqr. Feet          Thickness Of Custom Table Top Glass: 6MM/8MM/10MM/12MM. Shapes of Custom Table Top Glass : Rectangle/square/oval/round glass table tops or as per requirements</p>	
18	<p><b>Chest Board for CPR</b>          Common Specifications &amp; Features: Material: manufactured from high-density polyethylene (HDPE) or high-impact, hospital-grade polypropylene plastic. Weight: Lightweight, ranging from 1.3 kg to 3 kg (approx. 3–6 lbs) for easy handling and rapid deployment.</p>	
19	<p><b>Header &amp; Footer for Beds (or as per manufacturer)</b>          Standard Specifications for Head &amp; Foot Boards          Material: ABS (Acrylonitrile Butadiene Styrene) or Polypropylene (PP) with antibacterial additives, or stainless steel bows with laminated panels or as per manufacturer. Design: Curved shapes, smooth, and free from sharp corners. Functionality: Detachable/removable, with locking mechanisms to prevent shaking. Dimensions: Headboard Height: not less than 1060mm from the floor. Footboard Height: not less than 820mm from the floor. Protection: Integrated with plastic corner bumpers to protect walls during transport.</p>	
20	<p><b>Auditorium Chairs with installation</b>          Finish: Made with imported hardware and structure          Design: Compact Design with and without foldable tablet arm          Fabrication: Cladded in Imported Fabric with high-quality foam in the seat and back          Fitting: Imported Hardware and Floor fitting to be done on-site          Functionality: Most Apt for Auditoriums and Classrooms          Technical Specifications          Seat size: D470mm x W465mm          Back Size: H860mm x W490          Seat shell: D455mm x W400mm          Back shell: W430 x H730          Arm Rest: D420 x W85mm x H375mm          Base frame: D300mm x W65mm          Total height: 1000 mm          Arm Rests: Made of Polyurethane Pads          Seat and Back: Injection Mold Urethane form. Fire-resistant fabric upholstery with Environment-friendly spray glue. Concealed foldable Melamine Particle Board Tablet with Imported PVC edging.          Tip Up mechanism: counterbalanced Weight          Back design: Curved T shape. Seat and back shell in High-density polypropylene material 100% Eco Friendly.</p>	

	<p>Legs: Floor-mounted type legs ground with bolts.  Frame: In cold roll steel in high-quality powder-coated</p>	
<b>21</b>	<p><b>File Racks wooden (Three Shelf)</b>  Dimension : L x W x H= 560 x 370 x 1825MM  structure made of best quality Lasani lamination</p>	
<b>22</b>	<p><b>Side Rack Wooden</b>  Dimension: L x W x H= 914.39 x 548.3 x762 MM  structure made of best quality shesham venboard base foot covered with shesham wood. one drawer , one lockable cabinet with high quality polish finishing and two shelf s</p>	
<b>23</b>	<p><b>CENTER TABLE WOODEN LARGE :</b>  Dimension: L x W x H= 36'' x 22'' x18'' frame made of best quality shesham  wood. top made of 8mm glass with high quality polish finishing</p>	
<b>24</b>	<p><b>CENTER TABLE WOODEN SMALL:</b>  Dimension: L x W x H= 22'' x 22'' x18''. frame made of best quality shesham  Wood with high quality polish finishing. Top made of 8mm glass</p>	

**FOR SNO: 07, 08, 09, 10: SINGLE STAGE ONE ENVELOPE ITEMS THE FOLLOWING MANDATORY DOCUMENTS ARE REQUIRED:**

**Sample based selection is mandatory.**

	<b>Mandatory Requirements to be provided</b>	
<b>1</b>	Verified FBR last three years Income tax returns	<b>Mandatory</b>
<b>2</b>	Verified Sales tax returns last 01 year	<b>Mandatory</b>
<b>3</b>	SECP current active registration	<b>Mandatory</b>
<b>4</b>	KPRA (where applicable)	<b>(Where applicable)</b>
<b>5</b>	Active tax payer list verifiable from FBR online portal	<b>Mandatory</b>
<b>6</b>	Fully functional Office without biomedical/support services workshop at Peshawar alone.	<b>Mandatory</b>
<b>7</b>	Lowest Bid Certificate (as per format with the BSDs)	<b>Mandatory</b>
<b>8</b>	Comprehensive Warranty mandatory as mentioned in the technical specifications.	<b>Mandatory</b>
<b>9</b>	Firm / Bidder Financial Strength / Certificate, which shall be minimum 200 million and above. Last three years Audited Balance Sheet Duly attested by Chartered Accountant	<b>Mandatory</b>

<b>07-LOT-VARIOUS INSTRUMENTS (LOCAL) (MULTIPLE LOTS)</b>					
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>SNO. of the Item according to BSD S</b>	<b>Item Name</b>	<b>Pack Size</b>	<b>Set Price</b>	<b>Unit price per each item With all Taxes</b>	<b>Total Set Price with all Taxes</b>
<b><i>SET PRICE SHALL BE QUOTED SEPARATE FOR EACH SET</i></b>					

<b>LOT No. 1</b>					
<b>I</b>	<b>ORTHOPEDIC INSTRUMENTS</b>				
<b>A</b>	<b>Dressing Set with Box</b>		Set Price Rs.		
<b>B</b>	<b>General Orthopedic /cutting item</b>		Set Price Rs.		
<b>C</b>	<b>General cutting set (Ortho)</b>		Set Price Rs.		
<b>D</b>	<b>General Orthopedic set</b>		Set Price Rs.		
<b>E</b>	<b>Small Fragment set</b>		Set Price Rs.		
<b>F</b>	<b>Large Fragment set</b>		Set Price Rs.		
<b>G</b>	<b>Bone Holding Forceps Set</b>		Set Price Rs.		
<b>H</b>	<b>Carpal Tunnel Set</b>		Set Price Rs.		
<b>I</b>	<b>Kuntscher wire set</b>		Set Price Rs.		
<b>J</b>	<b>Hand Surgery instruments For Ortho &amp; Spine</b>		Set Price Rs.		
<b>K</b>	<b>Spine surgery instrument set</b>		Set Price Rs.		
<b>L</b>	<b>General Orthopaedic instrument set</b>		Set Price Rs.		
<b>M.</b>	<b>Instrument Set for DHS/DCS</b>		Set Price Rs.		
<b>N.</b>	<b>Expert Tibia Nail with Lid</b>		Set Price Rs.		
<b>O.</b>	<b>Expert Femur Nail with Lid</b>		Set Price Rs.		
<b>P.</b>	<b>PFN Box with Lid</b>		Set Price Rs.		
<b>Q.</b>	<b>REAMERS SET</b>		Set Price Rs.		
<b>R.</b>	<b>AUSTIN MOORE HIP PROSTHESIS INSTRUMENT SET</b>		Set Price Rs.		
<b>S.</b>	<b>EXTERNAL FIXATOR LARGE INSTRUMENT SET</b>		Set Price Rs.		
<b>T.</b>	<b>External Fixator (Medium) Instruments Set</b>		Set Price Rs.		
<b>U.</b>	<b>BIPOLAR INSTRUMENT SET</b>		Set Price Rs.		

V.	<b>ILIZAROV SET</b>		Set Price Rs.		
W	<b>Standard/ Orthopedic General Instrument Set:</b>		Set Price Rs.		
II	<b>SURGICAL OT</b>		Set Price Rs.		
III	<b>INSTRUMENTS FOR A&amp;E</b>		Set Price Rs.		
<b>LOT No. 2</b>					
IV	<b>INSTRUMENTS FOR GYNAE</b>				
A	<b>Cesarean Section (C-SECTION) Set</b>		Set Price Rs.		
B	<b>Total Abdominal Hestectomy ( T.A.H SET)</b>		Set Price Rs.		
C	<b>Virginal Hestectomy (VH SET)</b>		Set Price Rs.		
D	<b>Vasico Vaginal Fistula V.V.F SET</b>		Set Price Rs.		
E	<b>Dilatation And Crenation (D.N.C SET)</b>		Set Price Rs.		
F	<b>Debrainment And Dressing ( D/D) SET</b>		Set Price Rs.		
G	<b>Miscellaneous Instrument</b>		Set Price Rs.		
H	<b>Diagnostic Laparoscopic Instruments</b>		Set Price Rs.		
I	<b>Hysteroscopy Instruments</b>		Set Price Rs.		
J	<b>Laparoscopy Instruments</b>		Set Price Rs.		
K	<b>Colposcopy Instrument</b>		Set Price Rs.		
<b>LOT No. 3</b>					
V	<b>NEURO SURGERY INSTRUMENTS</b>				
A	<b>Dressing Set with Box</b>		Set Price Rs.		
B	<b>Neuro Surgery Instruments</b>		Set Price Rs.		
C	<b>Thoracotomy set</b>		Set Price Rs.		
D	<b>Laminectomy Set</b>		Set Price Rs.		
E	<b>Surgical Cutting set</b>		Set Price Rs.		

<b>F</b>	<b>Transpedicular fixation set</b>		Set Price Rs.		
<b>G</b>	<b>Cervical fixation set (Ant &amp; Post)</b>		Set Price Rs.		
<b>H</b>	<b>Emergency Craniotomy set</b>		Set Price Rs.		
<b>I</b>	<b>Odontoid screw set</b>		Set Price Rs.		
<b>J</b>	<b>Kyphoscoliosis surgery set</b>		Set Price Rs.		
<b>K</b>	<b>Micro Craniotomy Set</b>		Set Price Rs.		
<b>L</b>	<b>Micro Surgical Set for aneurysmal clipping.</b>		Set Price Rs.		
<b>M.</b>	<b>SPINAL RETRACTORS LOCAL</b>		Set Price Rs.		

	<b>Details of above</b>				
<b>LOT No. 1</b>					
<b>I</b>	<b>ORTHOPEDIC INSTRUMENTS</b>				
<b>A.</b>	<b>Dressing Set with Box</b>		Each Set		
<b>1</b>	<b>Artery Forceps M.size plain, curved</b>	Each			
<b>2</b>	<b>Needle Holder</b>	Each			
<b>3</b>	<b>Scissor Large</b>	Each			
<b>4</b>	<b>Kidney Tray medium</b>	Each			
<b>B.</b>	<b>General Orthopedic /cutting item</b>		Each Set		
<b>1</b>	<b>BP Handle size"4"</b>	Each			
<b>2</b>	<b>Bp Handle size"3"</b>	Each			
<b>3</b>	<b>Bone Holding Large Size</b>	Each			
<b>4</b>	<b>Bone Holding Medium Size</b>	Each			
<b>5</b>	<b>Bone Holding Small Size</b>	Each			
<b>6</b>	<b>Needle Holder Large Size</b>	Each			

7	<b>Needle Holder Medium Size</b>	Each			
8	<b>Kidney Tray Large</b>	Each			
9	<b>Large Size Deep self retaining retractor Large</b>	Each			
10	<b>Spange Holder Forceps</b>	Each			
11	<b>Curved Oestotome elevator Large</b>	Each			
12	<b>Curved Oestotome elevator Medium</b>	Each			
13	<b>Curved Oestotome elevator Small</b>	Each			
14	<b>Bone Cutter Large size double action</b>	Each			
15	<b>Choder Curved Large Size</b>	Each			
16	<b>Choder Straight Large size</b>	Each			
17	<b>Nigus Rt angle forceps</b>	Each			
18	<b>Pharyngeal suction tips</b>	Each			
19	<b>Chocker Forcep (Curved) Medium</b>	Each			
20	<b>Chocker Forcep (Curved) Small</b>	Each			
21	<b>Straight oestotome</b>	Each			
22	<b>Bone nibbler Large</b>	Each			
23	<b>Bone nibbler Small</b>	Each			
24	<b>Player</b>	Each			
<b>C.</b>	<b>General cutting set (Ortho)</b>		Each Set		
1	<b>Scalpel Handle size 3</b>	Each			
2	<b>Scalpel Handle size 4</b>	Each			
3	<b>Scalpel Handle size 7</b>	Each			
4	<b>Metzenbaum scissors, size 18cm CVD B/B</b>	Each			

5	<b>Mayo Scissors 17cm CVD B/B</b>	Each			
6	<b>Allis Tissue Forceps 20cm/15cm str</b>	Each			
7	<b>Kocher Forceps 15cm Str.</b>	Each			
8	<b>Sponge Holder 23cm</b>	Each			
9	<b>Adson tissue forceps plain 12cm</b>	Each			
10	<b>Adson tissue forceps Tooth 12cm</b>	Each			
11	<b>Dressig Forcep plain 18cm</b>	Each			
12	<b>Dressig Forcep Tooth 18cm</b>	Each			
13	<b>Mayo Needle Holder 18cm/ 20cm</b>	Each			
14	<b>Non Tramatic forceps 15cm str.</b>	Each			
15	<b>Non Tramatic forceps 20m str.</b>	Each			
16	<b>Kelly Foreeps 14cm CVD</b>	Each			
17	<b>Kelly Foreeps Mosquito 12cm CVD</b>	Each			
18	<b>Senn Mueller Retractor 16cm</b>	Each			
19	<b>Langenbeck Retractor Small</b>	Each			
20	<b>Langenbeck Retractor Medium</b>	Each			
21	<b>Langenbeck Retractor Large</b>	Each			
22	<b>Czerney Retractor 18cm</b>	Each			
23	<b>Self retaining retractor adson 23cm</b>	Each			
24	<b>Self retaining retractor adson 16cm</b>	Each			
25	<b>Backhaus Towel Clips 15cm</b>	Each			
26	<b>Lane Tissue forceps 18cm</b>	Each			
27	<b>Dressing forceps tooth heavy 17cm</b>	Each			
28	<b>Galipot, 100ml</b>	Each			
29	<b>Bowl 200ml</b>	Each			

30	<b>Kidney Tray German pattern Large/Small</b>	Each			
<b>D.</b>	<b>General Orthopedic set</b>		Each Set		
1	<b>Hohmann retractor Small</b>	Each			
2	<b>Hohmann retractor Medium</b>	Each			
3	<b>Hohmann retractor Large</b>	Each			
4	<b>Hohmann retractor X-Large</b>	Each			
5	<b>Hammer 350gm</b>	Each			
6	<b>Hammer 500gm</b>	Each			
7	<b>Bone Curette Small</b>	Each			
8	<b>Bone Curette Medium</b>	Each			
9	<b>Bone Curette Large</b>	Each			
10	<b>Ruler S.S Large</b>	Each			
11	<b>Bone Nibbler Luer 23cm Str.</b>	Each			
12	<b>Bone Nibbler Luer 23cm CVD</b>	Each			
13	<b>Bone Hook 20cm Sharp</b>	Each			
14	<b>Putti Rasp</b>	Each			
15	<b>Bone cutter Liston 18cm str.</b>	Each			
16	<b>Bone cutter Liston 23cm str.</b>	Each			
17	<b>Bone Nibbler 18cm str.</b>	Each			
18	<b>Bristow elevator 20cm cvd</b>	Each			
19	<b>Periosteal elevator 20cm cvd</b>	Each			
20	<b>Osteotome stile 10mm str.</b>	Each			
21	<b>Osteotome stile 12mm str.</b>	Each			
22	<b>Chisel stille 10mm str.</b>	Each			

23	Chisel Stille 12mm str.	Each			
24	Gouges stille 10mm str.	Each			
25	Gouges stille 12mm str.	Each			
26	Gigli Saw	Each			
27	Gigli Saw Handle	Each			
28	Bone Holding With Thread lock 28cm x 23mm	Each			
29	Bone Holding Lane 33cm	Each			
30	Amputation saw saterlee 31cm	Each			
E.	Small Fragment set		Each Set		
1	Drill bit 2.5mm	Each			
2	Drill bit 3.2mm	Each			
3	Countersink small	Each			
4	Drill guide for drill bit 2.0mm	Each			
5	Cancellous Tap 3.5mm	Each			
6	Sleeve for drill bit 2.0mm	Each			
7	Insert sleeve 2.5mm	Each			
8	Insert sleeve 3.5mm	Each			
9	Tap Sleeve 3.5mm	Each			
10	Drill Sleeve 2.5mm	Each			
11	Heagonal screw driver 2.5mm	Each			
12	Depth gauge small	Each			
13	Neutral and load drill guide 2.5mm	Each			
14	Sharp hook	Each			
15	Bender for plates 2	Each			

16	<b>Bender Templates 7Hole</b>	Each			
17	<b>Bender Templates 9Hole</b>	Each			
18	<b>Self centering bone holder 150mm</b>	Each			
19	<b>Reduction forceps pointed</b>	Each			
20	<b>Reduction forceps Small fragment</b>	Each			
21	<b>Retractor small with broad shank</b>	Each			
22	<b>Retractor small width 6mm</b>	Each			
23	<b>Retractor small width 8mm</b>	Each			
24	<b>Periosteal elevator straight edge width 6mm</b>	Each			
25	<b>Screw forceps</b>	Each			
26	<b>AO Coupling fiber handle</b>	Each			
27	<b>T-Handle</b>	Each			
<b>F.</b>	<b>Large Fragment set</b>		Each Set		
1	<b>Drill bit end TO fit coupling 3.2mm</b>	Each			
2	<b>Drill bit end TO fit coupling 4.5mm</b>	Each			
3	<b>Malleolar countersink 3.2mm tip</b>	Each			
4	<b>Tap 4.5mm</b>	Each			
5	<b>Tap 6.5mm</b>	Each			
6	<b>Tap Sleeve 3.5mm</b>	Each			
7	<b>Pointed Drill guide</b>	Each			
8	<b>Hexagonal screw driver 3.5mm</b>	Each			
9	<b>Hexagonal screw driver 4.5mm</b>	Each			
10	<b>Depth Gauge 4.5mm</b>	Each			
11	<b>Depth Gauge 6.5mm</b>	Each			

12	Sharp hook	Each			
13	Neutral and load drill guide 3.2mm	Each			
14	Bending Templates 5Holes	Each			
15	Bending Templates 7Holes	Each			
16	Bending Templates 9Holes	Each			
17	T-Handle	Each			
18	Tape Handel	Each			
19	Plate Bender Iron	Each			
20	Countersink 4.5mm				
<b>G.</b>	<b>Bone Holding Forceps Set</b>		Each Set		
1	Bone holding with Thread lock 0 150mm x 9mm	Each			
2	Bone holding with Thread lock 1 190mm x 10mm	Each			
3	Bone holding with Thread lock 2 240mm x 14mm	Each			
4	Bone holding with Thread lock 3 280mm x 23mm	Each			
5	Reduction forceps with points 200mm	Each			
6	Lane bone holding forceps 330mm	Each			
7	Bone holding Hey Groves 210mm	Each			
8	Bone holding Hey Groves 270mm	Each			
9	Bone holding Hey Groves 305mm	Each			
<b>H.</b>	<b>Carpal Tunnal Set</b>		Each Set		
1	Spong Holder	Each			

2	<b>B.P Handle</b>	Each			
3	<b>Steven Scissor 17cm</b>	Each			
4	<b>Mayo scissor 16cm</b>	Each			
5	<b>Mezenbaum scissors 14cm</b>	Each			
6	<b>MC Donled</b>	Each			
7	<b>Watson cheyen</b>	Each			
8	<b>Lengen back small</b>	Each			
9	<b>Bowel</b>	Each			
10	<b>Gilipot</b>	Each			
11	<b>Self retaining retractor small</b>	Each			
12	<b>Kelly forcep</b>	Each			
13	<b>Needle Holder</b>	Each			
14	<b>Adson (Tooth Forcep)</b>	Each			
<b>I.</b>	<b>Kuntscher wire set</b>		Each Set		
1	<b>Forcep for cerclage wire</b>	Each			
2	<b>Wire binding cutting plair</b>	Each			
3	<b>Plate Nose Parallel plair</b>	Each			
4	<b>Wise grip</b>	Each			
5	<b>Wire Cutter Small T/C</b>	Each			
6	<b>Wire Cutter Large T/C</b>	Each			
7	<b>Wire Passer</b>	Each			
8	<b>Wire Tightner</b>	Each			
9	<b>Extrauction plair</b>	Each			
10	<b>K-Wire</b>	Each			

11	Tray	Each			
12	Aluminium case	Each			
J.	Hand Surgery Equipment For Ortho & Spine		Each Set		
1	B.P Handle No.3	Each			
2	B.P Handle No.4	Each			
3	Tenotomy Scissor small	Each			
4	Tenotomy Scissor Medium each	Each			
5	Needle holder fine small	Each			
6	Needle Holder Medium Size	Each			
7	Ragnel retractor (cat's paw)	Each			
8	Tendor Passer	Each			
9	Towel clips-5	Each			
10	Inkpot	Each			
11	Ronger fine	Each			
12	self-retaining retractor small	Each			
13	Needle suture passing various sizes	Each			
14	Osteotome small	Each			
15	Hammer small	Each			
16	Sponge Holder	Each			
17	Tooth forcep small size plain	Each			
18	Mets Scissor straight	Each			
19	Tendon freer	Each			
20	Bone reducing forceps small	Each			
21	Hand Drill	Each			

22	<b>Tooth forcep small size</b>	Each			
23	<b>Mets Scissor Curved small Mets scissor curved medium</b>	Each			
24	<b>Mosquito artery forceps fine</b>	Each			
25	<b>Skin hook</b>	Each			
26	<b>Sims retractor</b>	Each			
27	<b>Freer</b>	Each			
28	<b>Army Navy</b>	Each			
29	<b>Wirecutter small</b>	Each			
30	<b>Bone cutter small</b>	Each			
31	<b>Esmarch</b>	Each			
32	<b>Periosteal elevator small</b>	Each			
33	<b>Gouge small</b>	Each			
34	<b>Bowel kidney tray</b>	Each			
35	<b>Iris scissors curved</b>	Each			
36	<b>Iris scissors Straight</b>	Each			
37	<b>Humbey's knife watson type</b>	Each			
38	<b>Bone holding forceps small</b>	Each			
39	<b>Howmans retractors small</b>	Each			
40	<b>Gouge small</b>	Each			
<b>K.</b>	<b>Spine Surgery Instrument SET:</b>		Each Set		
1	<b>Scalpel Handle for scalpel blades size 10 to 15 (length app;16cm)</b>	02 Nos			
2	<b>Scalpel Handle for scalpel blades size 10 to 15 (length app;21cm)</b>	02 Nos			

3	<b>Scalpel Handle for scalpel blades size 18 to 24. (length app;12 cm)</b>	02 Nos			
4	<b>Dissecting scissors straight length approx. 14cm</b>	02 Nos			
5	<b>Dissecting scissors curved length approx. 20cm</b>	02 Nos			
6	<b>Operating scissors straight</b>	02 Nos			
7	<b>Sharp Curette: Ø length= 17 cm Working tip= round, size 2mm</b>	02 Nos			
8	<b>Sharp Curette: Ø length= 17 cm Working tip= round, size 4mm</b>	02 Nos			
9	<b>Sharp Curette: Ø length= 17 cm Working tip= round, size 10mm</b>	02 Nos			
10	<b>Sharp Curette: Ø length= 17 cm Working tip= round, size 12</b>	02 Nos			
11	<b>Sharp Curette: Ø length= 28 cm Working tip= round, size 2mm</b>	02 Nos			
12	<b>Sharp Curette: Ø length= 28 cm Working tip= round, size 4mm</b>	02 Nos			
13	<b>Sharp Curette: Ø length= 28 cm Working tip= round, size 10mm</b>	02 Nos			
14	<b>Sharp Curette: Ø length= 28 cm Working tip= round, size 12mm</b>	02 Nos			
15	<b>BONE RONGEURS:</b>				
a.	<b>Ø Length = 14 cm Working tip= straight, size 3mm</b>	01 Nos			
b	<b>Ø Length = 14 cm Working tip= straight, size 5mm</b>	01 Nos			
c	<b>Ø Length = 14 cm Working tip= straight, size 10mm</b>	01 Nos			

d	<b>Ø Length = 17 cm Working tip= straight, size 3mm</b>	01 Nos			
e	<b>Ø Length = 17 cm Working tip= straight, size 5mm</b>	01 Nos			
f	<b>Ø Length = 17 cm Working tip= straight, size 10mm</b>	01 Nos			
16	<b>Bone Cutting Forceps:</b>				
a	<b>Ø Length= 14 cm Working tip= standard, straight</b>	02 Nos			
b	<b>Ø Length= 17 cm Working tip= standard, straight</b>	02 Nos			
17	<b>Cobb's Raspatory/periosteal elevator:</b>				
a	<b>Length = 25 cm Working tip/end= 13 mm wide, slightly curved, semi-sharp</b>	02 Nos			
b	<b>Length = 25 cm Working tip/end= 19 mm wide, slightly curved, semi-sharp</b>	02 Nos			
c	<b>Length = 25 cm Working tip/end= 25 mm wide, slightly curved, semi-sharp</b>	02 Nos			
18	<b>OSTEOTOME:</b>				
a	<b>Length = 17 – 20 cm Working tip/ end = 6mm wide , straight</b>	02 Nos			
b	<b>Length = 17 – 20 cm Working tip/ end = 10mm wide , straight</b>	02 Nos			
c	<b>Length = 17 – 20 cm Working tip/ end = 12mm wide , straight</b>	02 Nos			
d	<b>Length = 17 – 20 cm Working tip/ end = 15mm wide , straight</b>	02 Nos			
e	<b>Length = 17 – 20 cm Working tip/ end = 25mm wide , straight</b>	02 Nos			

<b>f</b>	<b>Length = 25 – 30 cm Working tip/ end = 4mm wide , straight</b>	02 Nos			
<b>g</b>	<b>Working tip/ end = 6mm wide , straight 25 – 30 cm</b>	02 Nos			
<b>h</b>	<b>Working tip/ end = 10mm wide , straight 25 – 30 cm</b>	02 Nos			
<b>i</b>	<b>Working tip/ end = 12mm wide , straight</b>	02 Nos			
<b>j</b>	<b>Working tip/ end = 15mm wide , straight 25 – 30 cm</b>	02 Nos			
<b>19</b>	<b>Kidney Bowl:</b>				
<b>a</b>	<b>Characteristics: 170 ml, stainless steel</b>	02 Nos			
<b>b</b>	<b>Characteristics: 250 ml, stainless steel</b>	02 Nos			
<b>c</b>	<b>Characteristics: 500 ml, stainless steel</b>	02 Nos			
<b>20</b>	<b>Instruments/Dressing Tray: Characteristics: 375-270 50mm, Stainless steel</b>	02 Nos			
<b>21</b>	<b>Solution bowl: Characteristics: 60 – 80 ml capacity 160 – 180 ml capacity</b>	02 Nos			
<b>22</b>	<b>Wash Bowl:</b>				
<b>a</b>	<b>Characteristics:- 01 Litre capacity, stainless steel</b>	02 Nos			
<b>b</b>	<b>02 Litres capacity, stainless steel</b>	02 Nos			
<b>c</b>	<b>05 Litres capacity, stainless steel</b>	02 Nos			
<b>23</b>	<b>dissecting Forcep:</b>				
<b>a</b>	<b>length: 18 – 20 cm characteristics: straight, blunt</b>	02 Nos			
<b>b</b>	<b>length: 14 – 16 cm characteristics: straight, slim</b>	02 Nos			
<b>c</b>	<b>length: 18 – 20 cm characteristics:</b>	02 Nos			

	straight, slim				
24	<b><u>Tissue Forcep:</u></b>				
a	length: 14 – 16 cm characteristics: straight working tip/end: 1- 2 teeth	Each			
b	length: 20 – 25 cm characteristics: straight working tip/end: 1 2 teeth	Each			
c	length: 14 – 16 cm characteristics: straight, slim working tip/end: 1 2 teeth	Each			
d	length: 18 – 20 cm characteristics: straight, slim working tip/end: 12 teeth	Each			
25.A	<b>Needle Holder:</b>				
a	Length: 10 – 12 cm	Each			
b	Length: 14 – 16 cm	Each			
c	Length: 18 – 20 cm	Each			
25.B	<b>Haemostatic/Artery Forcep:</b>				
a	Length= 10cm	Each			
	Characteristics= curved , standard pattern				
b	Length= 12.5 cm	Each			
	Characteristics= curved , standard pattern				
c	Length= 14 cm	Each			
	Characteristics= curved , standard pattern				
d	Length= 16 cm	Each			
	Characteristics= curved , standard pattern				
e	Length= 12.5 cm	Each			
	Characteristics= curved , delicate pattern				

<b>f</b>	<b>Length= 14 cm</b>	Each			
	<b>Characteristics= curved , delicate pattern</b>				
<b>g</b>	<b>Length= 16 cm</b>	Each			
	<b>Characteristics= curved , delicate pattern</b>				
<b>h</b>	<b>Length= 18 cm</b>	Each			
	<b>Characteristics= curved , delicate pattern</b>				
<b>i</b>	<b>Length= 12.5 cm</b>	Each			
	<b>Characteristics= straight , standard pattern</b>				
<b>j</b>	<b>Length= 14 cm</b>	Each			
	<b>Characteristics= straight , standard pattern</b>				
<b>k</b>	<b>Length= 18 cm</b>	Each			
	<b>Characteristics= straight , standard pattern</b>				
<b>l</b>	<b>Length= 16 cm</b>	Each			
	<b>Characteristics= Kocher, straight , delicate pattern</b>				
	<b>Working tip/end= 1 x 2 teeth</b>				
<b>m</b>	<b>Length= 20 cm</b>	Each			
	<b>Characteristics= Kocher, straight , delicate pattern</b>				
	<b>Working tip/end= 1 x 2 teeth</b>				
<b>n</b>	<b>Length= 25 cm</b>	Each			
	<b>Characteristics= Kocher, straight , delicate pattern</b>				

	<b>Working tip/end= 1 x 2 teeth</b>				
<b>26</b>	<b>Tissue Grasping Forcep:</b>				
<b>a</b>	<b>Length = 14 cm</b>	Each			
	<b>Characteristics= straight</b>				
	<b>Working tip/end= 3 x 4 teeth</b>				
<b>b</b>	<b>Length = 16 cm</b>	Each			
	<b>Characteristics= straight</b>				
	<b>Working tip/end= 3 x 4 teeth</b>				
<b>c</b>	<b>Length = 20 cm</b>	Each			
	<b>Characteristics= straight</b>				
	<b>Working tip/end= 3 x 4 teeth</b>				
<b>27</b>	<b>Towel Clamp:</b>				
<b>a</b>	<b>Length = 5.5 cm</b>	Each			
	<b>Characteristics= curved, cross action</b>				
<b>b</b>	<b>Length = 8 cm</b>	Each			
	<b>Characteristics= curved, cross action</b>				
<b>c</b>	<b>Length = 10 cm</b>	Each			
	<b>Characteristics= curved, cross action</b>				
<b>d</b>	<b>Length = 13 cm</b>	Each			
	<b>Characteristics=curved, cross action</b>				
<b>e</b>	<b>Length = 16 cm</b>	Each			
<b>28</b>	<b>Sponge Forcep:</b>				
<b>a</b>	<b>Length= 18 cm, Straight</b>	Each			
<b>b</b>	<b>Length= 24 cm, Straight</b>	Each			
<b>29</b>	<b>Laminectomy Rongeur:</b>				

<b>a</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 18 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 2 mm wide</b>				
<b>b</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 18 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 3 mm wide</b>				
<b>c</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 18 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting jaws 4 mm wide</b>				
<b>d</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 18 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 5 mm wide</b>				
<b>e</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 2 mm wide</b>				
<b>f</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 3 mm wide</b>				
<b>g</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 4 mm wide</b>				

<b>h</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 5 mm wide</b>				
<b>i</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 25 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 6 mm wide</b>				
<b>j</b>	<b>Kerrison laminectomy rongeur</b>	Each			
	<b>Length = 20 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 3 mm wide</b>				
<b>k</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 20 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 4 mm wide</b>				
<b>l</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 30 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 2 mm wide</b>				
<b>m</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 30 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 3 mm wide</b>				
<b>n</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 30 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 4 mm wide</b>				

<b>o</b>	<b>Kerrison laminectomy rongeur</b>				
	<b>Length = 30 cm</b>	Each			
	<b>Working tip/end= 40° up-cutting, jaws 5 mm wide</b>				
<b>30</b>	<b><u>Nerve Hook:</u></b>				
<b>a</b>	<b>Length= 18-20cm</b>	Each			
	<b>Working tip/end= 2mm, Probe end</b>				
<b>b</b>	<b>Length= 18-20cm</b>	Each			
	<b>Working tip/end= 3mm, Probe end</b>				
<b>c</b>	<b>Length= 18-20cm</b>	Each			
	<b>Working tip/end= 4mm, Probe end</b>				
<b>d</b>	<b>Length= 18-20cm</b>	Each			
	<b>Working tip/end= 5mm, Probe end</b>				
<b>e</b>	<b>Length= 18-20cm</b>	Each			
	<b>Working tip/end= 8mm, Probe end</b>				
<b>f</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Taylor spinal retractor:</b>				
<b>g</b>	<b>Length= 18cm</b>	Each			
	<b>Working tip/end= 30 mm wide, 70 mm deep</b>				
<b>h</b>	<b>Length= 18cm</b>	Each			
	<b>Working tip/end= 20 mm wide, 70 mm deep</b>				
<b>i</b>	<b>Length= 18cm</b>	Each			
	<b>Working tip/end= 30 mm wide, 100 mm deep</b>				
<b>30</b>	<b>McDonald Dissector/Elevator:</b>				

<b>a</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Working tip/end= 2mm wide, blunt</b>				
<b>b</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Working tip/end= 4mm wide, blunt</b>				
<b>c</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Working tip/end= 10mm wide, blunt</b>				
<b>d</b>	<b>Length= 18 – 20 cm</b>	Each			
	<b>Working tip/end= 12mm wide, blunt</b>				
<b>e</b>	<b>Length= 24 – 26 cm</b>	Each			
	<b>Working tip/end= 4mm wide, blunt</b>				
<b>f</b>	<b>Length= 24 – 26 cm</b>	Each			
	<b>Working tip/end= 6mm wide, blunt</b>				
<b>g</b>	<b>Length= 24 – 26 cm</b>	Each			
	<b>Working tip/end= 10mm wide, blunt</b>				
<b>h</b>	<b>Length= 24 – 26 cm</b>	Each			
	<b>Working tip/end= 12mm wide, blunt</b>				
<b>31</b>	<b>Micro-Dissector ( Spine Surgery):</b>				
<b>a</b>	<b>Length= 18 – 20 cm</b>	02 Nos			
	<b>Working tip/end= 1mm wide, semi sharp, curved</b>				
<b>b</b>	<b>Length= 18 – 20 cm</b>	02 Nos			
	<b>Working tip/end= 2mm wide, semi sharp, curved</b>				
<b>c</b>	<b>Length= 18 – 20 cm</b>	02 Nos			
	<b>Working tip/end= 3mm wide, semi sharp, curved</b>				
<b>d</b>	<b>Length= 24 - 26 cm</b>	02 Nos			

	<b>Working tip/end= 1mm wide, semi sharp, curved</b>				
<b>e</b>	<b>Length= 24 - 26 cm</b>	<b>02 Nos</b>			
	<b>Working tip/end= 2mm wide, semi sharp, curved</b>				
<b>f</b>	<b>Length= 24 - 26 cm</b>	<b>02 Nos</b>			
	<b>Working tip/end= 3mm wide, semi sharp, curved</b>				
<b>32</b>	<b>Self-Retaining Retractors:</b>				
<b>a</b>	<b>Length = 13cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 16 mm deep, blunt</b>				
<b>b</b>	<b>Length = 13cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 20 mm deep, blunt</b>				
<b>c</b>	<b>Length = 13cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 25 mm deep, blunt</b>				
	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 16 mm deep, blunt</b>				
<b>d</b>	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 20 mm deep, blunt</b>				
<b>e</b>	<b>Length = 17cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 25 mm deep, blunt</b>				
<b>f</b>	<b>Length = 20cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 16 mm deep, blunt</b>				

<b>g</b>	<b>Length = 20cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 18 mm deep, blunt</b>				
<b>h</b>	<b>Length = 20cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 25 mm deep, blunt</b>				
<b>i</b>	<b>Length = 25cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 16 mm deep, blunt</b>				
<b>j</b>	<b>Length = 25cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 18 mm deep, blunt</b>				
<b>k</b>	<b>Length = 25cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 20 mm deep, blunt</b>				
<b>l</b>	<b>Length = 25cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 4 x 4 prongs, 25 mm deep, blunt</b>				
<b>m</b>	<b>Length = 25cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 7 x 7 prongs, 16 mm deep, blunt</b>				
<b>n</b>	<b>Length = 25cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 7 x 7 prongs, 18 mm deep, blunt</b>				
<b>o</b>	<b>Length = 25cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 7 x 7 prongs, 20 mm deep, blunt</b>				
<b>p</b>	<b>Length = 25cm</b>	<b>02 Nos</b>			
	<b>Working tip/end = 7 x 7 prongs, 25 mm deep, blunt</b>				

<b>33</b>	<b>Langenbeck Retractor:</b>				
<b>a</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 6 mm wide, 40 mm deep</b>				
<b>b</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 8 mm wide, 40 mm deep</b>				
<b>c</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 10 mm wide, 40 mm deep</b>				
<b>d</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 15 mm wide, 40 mm deep</b>				
<b>e</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 20 mm wide, 40 mm deep</b>				
<b>f</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 30 mm wide, 40 mm deep</b>				
<b>g</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working Tip/end = 40 mm wide, 40 mm deep</b>				
<b>h</b>	<b>Length = 25cm</b>	03 Nos			
	<b>Working Tip/end = 40 mm wide, 40 mm deep</b>				
<b>i</b>	<b>Length = 25cm</b>	03 Nos			
	<b>Working Tip/end = 6 mm wide, 40 mm deep</b>				
<b>j</b>	<b>Length = 25cm</b>	03 Nos			

	<b>Working Tip/end = 8 mm wide, 40 mm deep</b>				
<b>k</b>	<b>Length = 25cm</b>	03 Nos			
	<b>Working Tip/end = 10 mm wide, 40 mm deep</b>				
<b>l</b>	<b>Length = 25cm</b>	03 Nos			
	<b>Working Tip/end = 15 mm wide, 40 mm deep</b>				
<b>m</b>	<b>Length = 25cm</b>	03 Nos			
	<b>Working Tip/end = 20 mm wide, 40 mm deep</b>				
<b>n</b>	<b>Length = 25cm</b>	03 Nos			
	<b>Working Tip/end = 30 mm wide, 40 mm deep</b>				
<b>o</b>	<b>Length = 25cm</b>	03 Nos			
	<b>Working Tip/end = 40 mm wide, 40 mm deep</b>				
<b>34</b>	<b>Rongeurs for Intervertebral Disc (Pituitary Rongeurs):</b>				
<b>a</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>b</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 3mm x 12 mm</b>				
<b>c</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 4mm x 12 mm</b>				

<b>d</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 6mm x 12 mm</b>				
<b>e</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 14 mm</b>				
<b>f</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>g</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>h</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>i</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>j</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>k</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>l</b>	<b>Length = 17cm</b>	02 Nos			

	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>m</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>n</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>o</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>p</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>q</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 2mm x 12 mm</b>				
<b>r</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 3mm x 12 mm</b>				
<b>s.</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				
	<b>Working tip/ end= 4mm x 12 mm</b>				
<b>t</b>	<b>Length = 17cm</b>	02 Nos			
	<b>Characteristics= straight</b>				

	<b>Working tip/ end= 6mm x 12 mm</b>				
<b>35</b>	<b>Suction tube/ tip:</b>				
<b>a</b>	<b>Length = 25cm</b>	03 Nos			
	<b>Working tip/end = curved</b>				
<b>b</b>	<b>Length = 30cm</b>	03 Nos			
	<b>Working tip/end = curved</b>				
<b>c</b>	<b>Length = 35cm</b>	03 Nos			
	<b>Working tip/end = curved</b>				
<b>36</b>	<b>Suction Canula:</b>				
<b>a</b>	<b>Length = 12.5cm</b>	03 Nos			
	<b>Working tip/end = curved 2.5mm</b>				
<b>b</b>	<b>Length = 12.5cm</b>	03 Nos			
	<b>Working tip/end = curved 3.5mm</b>				
<b>c</b>	<b>Length = 12.5cm</b>	03 Nos			
	<b>Working tip/end = curved 5mm</b>				
<b>d</b>	<b>Length = 12.5cm</b>	03 Nos			
	<b>Working tip/end = curved 10mm</b>				
<b>e</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 2.5mm</b>				
<b>f</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 3.5mm</b>				
<b>g</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 5mm</b>				
<b>h</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 8mm</b>				

<b>i</b>	<b>Length = 17cm</b>	03 Nos			
	<b>Working tip/end = curved 10mm</b>				
<b>L</b>	<b>General Orthopaedic instrument set</b>				
<b>A</b>	<b>MonoLoc 3.5mm/ DCP/ LCP Locking Plate System Instruments Set</b>		Each Set Price		
<b>1</b>	<b>MonoLoc 3.5mm Locking Plate System Instruments Set (Empty)-PPSU</b>	Each			
<b>2</b>	<b>Drill Guide 2.6</b>	Each			
<b>3</b>	<b>Drill Bit with Stop, <math>\phi</math>2.6mm</b>	Each			
<b>4</b>	<b>Drill Bit with straight shank, <math>\phi</math>2.6mm</b>	Each			
<b>5</b>	<b>Guide Sleeve for K-Wire, <math>\phi</math>1.2mm</b>	Each			
<b>6</b>	<b>Torque-limiting Screwdriver, T15</b>	Each			
<b>7</b>	<b>Screw Holding Sleeve for StarDrive Screw</b>	Each			
<b>8</b>	<b>Screwdriver, self-retaining</b>	Each			
<b>9</b>	<b>Allen Key</b>	Each			
<b>10</b>	<b>Kirschner Wire, <math>\phi</math>1.2mm</b>	Each			
<b>11</b>	<b>Extraction Screw, <math>\phi</math>3.5mm</b>	Each			
<b>12</b>	<b>Drill Bit for Screw Head Removal</b>	Each			
<b>13</b>	<b>Trephine</b>	Each			
<b>14</b>	<b>Drill Bit, <math>\phi</math>3.5mm</b>	Each			
<b>15</b>	<b>Drill Bit, <math>\phi</math>2.5mm</b>	Each			
<b>16</b>	<b>Torx Screwdriver, with Quick Coupling</b>	Each			
<b>17</b>	<b>Double Drill Guide 3.5/2.5</b>	Each			
<b>18</b>	<b>Double Drill Sleeve 2.5</b>	Each			
<b>19</b>	<b>Depth Gauge, 80mm</b>	Each			

20	Tap, $\phi$ 4.0mm	Each			
21	Tap, $\phi$ 3.5mm	Each			
22	T-handle with Quick Coupling	Each			
23	Screw Holding Sleeve for Hex Screw	Each			
24	Hex Screwdriver	Each			
25	Bone Holding Forceps, self-centering	Each			
26	Reduction Forceps, serrated jaws, small	Each			
27	Reduction Forceps with Points, small	Each			
28	Bending Irons	Each			
B	MonoLoc 5.0mm/ 4.5mm Locking Plate System Instruments Set		Each Set Price		
1	MonoLoc 5.0mm Locking Plate System Instruments Set (Empty)-PPSU	Each			
2	Drill Guide 4.1	Each			
3	Drill Bit with Stop, $\phi$ 4.1mm	Each			
4	Drill Bit with straight shank, $\phi$ 4.1mm	Each			
5	Guide Sleeve for K-Wire, $\phi$ 2.0mm	Each			
6	Torque-limiting Screwdriver, T25	Each			
7	Screw Holding Sleeve for StarDrive Screw	Each			
8	Screwdriver, self-retaining	Each			
9	Torx Screwdriver, with Quick Coupling	Each			
10	Extraction Screw, $\phi$ 5.0mm	Each			
11	Allen Key	Each			
12	Drill Bit for Screw Head Removal	Each			
13	Kirschner Wire, $\phi$ 2.0mm	Each			

14	<b>Double Drill Guide 6.5/3.2</b>	Each			
15	<b>Double Drill Guide 4.5/3.2</b>	Each			
16	<b>Trephine</b>	Each			
17	<b>Drill Bit, <math>\phi</math>4.5mm</b>	Each			
18	<b>Drill Bit, <math>\phi</math>3.2mm</b>	Each			
19	<b>Depth Gauge, 90mm</b>	Each			
20	<b>T-handle with Quick Couping</b>	Each			
21	<b>Tap, <math>\phi</math>6.5mm</b>	Each			
22	<b>Tap, <math>\phi</math>4.5mm</b>	Each			
23	<b>Hex Screwdriver</b>	Each			
24	<b>Screw Holding Sleeve for Hex Screw</b>	Each			
25	<b>Reduction Forceps, serrated jaws, large</b>	Each			
26	<b>Reduction Forceps with Points, large</b>	Each			
27	<b>Bone Holding Forceps, self-centering</b>	Each			
28	<b>Bending Irons, Left</b>	Each			
29	<b>Bending Irons, Right</b>	Each			
<b>M.</b>	<b>Instrument Set for DHS/DCS</b>				
	<b>DH/DC System Instruments Set (Empty)-PPSU</b>		Each Set		
<b>1</b>	<b>Drill Bit, <math>\Phi</math> 3.2mm</b>	Each			
<b>2</b>	<b>Drill Bit, <math>\Phi</math> 4.5mm</b>	Each			
<b>3</b>	<b>Tap, <math>\Phi</math> 4.5mm</b>	Each			
<b>4</b>	<b>Tap, <math>\Phi</math> 6.5mm</b>	Each			
<b>5</b>	<b>T-Handle with Quick Coupling</b>	Each			
<b>6</b>	<b>T-Handle with Quick Coupling (Large)</b>	Each			

7	<b>Depth Gauge, 90mm</b>	Each			
8	<b>Depth Gauge, 200mm</b>	Each			
9	<b>Hex Screwdriver</b>	Each			
10	<b>Screw Holding Sleeve for Hex Screw</b>	Each			
11	<b>DC Angled Guide, 95°</b>	Each			
12	<b>DH Angled Guide, 135°</b>	Each			
13	<b>DC Triple Reamer</b>	Each			
14	<b>DH Triple Reamer</b>	Each			
15	<b>Centering Sleeve DH/DC System, short</b>	Each			
16	<b>Easyout</b>	Each			
17	<b>Tap for DH/DC Screws, length 220mm</b>	Each			
18	<b>Double Drill Sleeve 3.2</b>	Each			
19	<b>Coupling Shaft</b>	Each			
20	<b>DH/DC Wrench, for Removal of DH/DC Screws</b>	Each			
21	<b>DH/DC Impactor</b>	Each			
22	<b>DH/DC Impactor</b>	Each			
23	<b>Threaded pin, 2.5×230mm</b>	Each			
24	<b>Kirschner Wire, Φ 2.0mm</b>	Each			
25	<b>DH/DC Centering Sleeve, removable</b>	Each			
26	<b>Centering Sleeve DH/DC, long</b>	Each			
27	<b>Trephine</b>	Each			
28	<b>DH/DC Wrench, for DH/DC Screws in Titanium Alloy</b>	Each			
29	<b>Drill Bit, Φ 2.0mm, with Quick Coupling</b>	Each			
30	<b>Double Drill Guide 6.5/3.2</b>	Each			

31	Double Drill Guide 4.5/3.2	Each			
32	Cannulated Connecting Screw	Each			
33	Drill Guide 4.1	Each			
34	Drill Bit with Stop, $\Phi$ 4.1mm	Each			
35	Guide Sleeve for K-Wire, $\Phi$ 2.0mm	Each			
36	Screw Holding Sleeve for StarDrive Screw	Each			
37	Torque-limiting Screwdriver, T25	Each			
38	Screwdriver, self-retaining	Each			
39	Extraction Screw, $\Phi$ 5.0mm	Each			
40	Allen Key	Each			
41	Drill Bit for Screw Head Removal	Each			
42	Torx Screwdriver, with Quick Coupling	Each			
43	Kirschner Wire, $\Phi$ 2.0mm	Each			
44	Hex Screwdriver	Each			
N.	Expert Tibia Nail with Lid		<b>Each Set Price</b>		
1	Direct Measuring Scale	Each			
2	Guide Wire for Inner Screw $\text{Ø}2.8$	Each			
3	Depth Gauge 20-100mm	Each			
4	Quick Coupling Fibre Handle	Each			
5	Allingment Rod 08mm	Each			
6	Allingment Rod 09mm	Each			
7	Allingment Rod 10mm	Each			
8	Allingment Rod 11mm	Each			
9	Hook	Each			

10	Step Drill Bit Q/C 6.0mm	Each			
11	Drill Bit Q/C 6.0mm	Each			
12	Positioning Rod Drill #6.0mm	Each			
13	Quick Coupling Drill 3.2mm Short	Each			
14	Quick Coupling Drill 4.2mm Short	Each			
15	Quick Coupling Drill 3.2mm Long	Each			
16	Quick Coupling Drill 4.2mm Long	Each			
17	Key Rod	Each			
18	Universal Outer Sleeve for 4.2mm	Each			
19	Inner Sleeve for 3.2 Yellow	Each			
20	Trocar Yellow 3.2	Each			
21	Inner Sleeve Green 4.2	Each			
22	Trocar Green 4.2	Each			
23	Shever Sleeve	Each			
24	Shever Trocar	Each			
25	Measuring Scale Black 20-100mm	Each			
26	Nail Extraction	Each			
27	Nail Extraction Shaft	Each			
28	Screw Space Bolt Green 5mm	Each			
29	Screw Space Bolt Blue 4mm	Each			
30	Threaded Guide Wire 3.2	Each			
31	Screw Space Trocar	Each			
32	Screw Space Inner Sleeve	Each			
33	Screw space Bolt Holding Fibre	Each			
34	Spaner	Each			

35	Jacob's Chuck T Handle	Each			
36	Screw Holding Sleeve	Each			
37	Screw Driver Long	Each			
38	Screw Driver 4.5mm Cannulated Fibre	Each			
39	Nail Extractor M8	Each			
40	Sleeve for Stabilizing Rod	Each			
41	Bolt Black Long	Each			
42	Bolt Black Short	Each			
43	Jig Attachment Black	Each			
44	E Clamp	Each			
45	Jig for Distal Screw with 2 Nut	Each			
46	Sleeve 12.2	Each			
47	Black Jig for Proximal Screw with Bolt	Each			
48	Hammer	Each			
49	Proximal Jig	Each			
50	Bolt for Nail	Each			
51	Nail Pushing Attachment two pcs	Each			
52	Cannulated Fracture Reducer Slotted	Each			
53	Bolt Tightening Fiber handle Driver	Each			
54	Nail Extraction Rod	Each			
55	Long Jig Bar Attachment for Distal Screw	Each			
O.	Expert Femur Nail with Lid		Each Set Price		
1	Jig Femoral	Each			
2	Nail Alignment Fixating Bolt	Each			

3	<b>Trocar</b>	Each			
4	<b>Bolt extraction shaft</b>	Each			
5	<b>Nail Impactor Two Pieces</b>	Each			
6	<b>Nail Extractor Long</b>	Each			
7	<b>Nail Extractor Short</b>	Each			
8	<b>Spanner</b>	Each			
9	<b>Jig Attachment Black</b>	Each			
10	<b>Bolt Tightener with Fiber Handle</b>	Each			
11	<b>Mallet</b>	Each			
12	<b>Nail Extractor Medium</b>	Each			
13	<b>Guide Wire 3.2 x 400</b>	Each			
14	<b>Recon Drill Bit 6.5/4.5</b>	Each			
15	<b>Screw Driver Long</b>	Each			
16	<b>T Handle Fracture Reducer rod</b>	Each			
17	<b>Screw Holding Sleeve</b>	Each			
18	<b>Flexible Reamer Ø14</b>	Each			
19	<b>Owl cannulated Crrd</b>	Each			
20	<b>Reamer Guide Handle</b>	Each			
21	<b>Inner Guide Wire Sleeve</b>	Each			
22	<b>Direct Measuring Scale</b>	Each			
23	<b>Direct Measuring Scale</b>	Each			
24	<b>Guide Wire for Inner Screw</b>	Each			
25	<b>Hook</b>	Each			
26	<b>Screw Holder</b>	Each			
27	<b>Stabalize Rod Ø09</b>	Each			

28	<b>Stabalize Rod Ø10</b>	Each			
29	<b>Stabalize Rod Ø11</b>	Each			
30	<b>Hook</b>	Each			
31	<b>Outer Sleeve Ø 12/ Ø 08 Green</b>	Each			
32	<b>Inner Sleeve Ø 8/4.2Green</b>	Each			
33	<b>Trocar 4.2mm Green</b>	Each			
34	<b>Drill Bit 4.2mm QC Short</b>	Each			
35	<b>Drill Bit 4.2mm QC Long</b>	Each			
36	<b>Depth Gauge Long Black</b>	Each			
37	<b>Depth Gauge 20-100mm Black</b>	Each			
38	<b>Depth Gauge 20-100mm</b>	Each			
39	<b>Outer Sleeve 08/06</b>	Each			
40	<b>Inner Trocar Ø 6mm</b>	Each			
41	<b>Drill Bit Ø 6.0mm</b>	Each			
42	<b>Drill Bit Pointed Ø 6.0mm</b>	Each			
43	<b>Drill Shaver Ø 6.0mm</b>	Each			
44	<b>Outer Sleeve Yellow 11.5/8.5</b>	Each			
45	<b>Inner Sleeve Yellow 8.5/3.2</b>	Each			
46	<b>Trocar 3.2mm</b>	Each			
47	<b>Q/C Fiber Handle6</b>	Each			
48	<b>Screw Driver</b>	Each			
49	<b>End Cap Screw Driver</b>	Each			
50	<b>Cannulated Screw Driver</b>	Each			
51	<b>Cannulated outer sleeve wooden</b>	Each			
52	<b>Cannulated Long Sleeve</b>	Each			

53	Trocar	Each			
54	Outer Block Short Sleeve	Each			
55	Left Distal with Two Bolt	Each			
56	Right Distal with Two Bolt	Each			
57	Long Rod for Distal screw	Each			
58	E Block	Each			
59	Distal Screw Jig with Black Screw	Each			
60	Black Jig with Screw	Each			
61	Nail Stabilizer Pin 09mm	Each			
62	Nail Stabilizer Pin 10mm	Each			
63	Nail Stabilizer Pin 11mm	Each			
64	Nail Stabilizer Pin12mm	Each			
65	Nail Stabilizer Pin13mm	Each			
66	Nail Stabilizer Pin 14mm	Each			
P.	PFN Box with Lid		<b>Each Set Price</b>		
1	Plain Guide Wires Long 2.5 x 450mm	Each			
2	Threaded Guide Wires 3.2 x 400mm	Each			
3	Nail Length Gauge Cr	Each			
4	Flexible Reamer 17mm Cr	Each			
5	Entry Reamer 17mm Cr	Each			
6	6pals Fiber Handel Cannulated Driver Cr	Each			
7	Impactor for Jig (2 Pcs) Cr	Each			
8	Cannulated T. Awl Cr10603701	Each			
9	Entry Sleeve 17.5mm	Each			

10	<b>Multi Holes Inner Sleeve for Guide Wires</b>	Each			
11	<b>Nail Guide for PFN</b>	Each			
12	<b>Nail Guide Bolt</b>	Each			
13	<b>Spiral Blade Cannulated Drill Bit 11mm</b>	Each			
14	<b>Bit Stopper</b>	Each			
15	<b>Spiral Blade Entry Reamer Cannulated 11mm</b>	Each			
16	<b>Coupling Sleeve Round T16 x 2</b>	Each			
17	<b>Spiral Blade yellow Sleeve Threaded T16 x 2</b>	Each			
18	<b>Yellow Inner Sleeve for Guide Wire 11.5</b>	Each			
19	<b>Yellow Trocar 3 x 24.5mm</b>	Each			
20	<b>Slotted Hammer with fiber handle</b>	Each			
21	<b>Yellow Screw Driver Spiral Blade SW 4.5</b>	Each			
22	<b>Yellow Screw Length Gauge 80- 200</b>	Each			
23	<b>Radiolucent Anti Rotation Guide for wires</b>	Each			
24	<b>Radiolucent Drill Guide 130° with bolt</b>	Each			
25	<b>Radiolucent Drill Guide 130° with bolt for distal Screw</b>	Each			
26	<b>L-Key 12mm x 4.5mm</b>	Each			
27	<b>Screw holding Forceps</b>	Each			
28	<b>Nail Extraction Rod</b>	Each			
29	<b>Sleeve for 3.5 /5.6mm</b>	Each			
30	<b>Screw Holding Sleeve For Screw Driver</b>	Each			
31	<b>Long T Handle for spiral Blade Removal SW 4.5</b>	Each			

32	<b>6 Pals Screw Driver for locking Screw removal SW4</b>	Each			
33	<b>Solid Hex Screw Driver</b>	Each			
34	<b>Cannulated Screw Driver with fiber Handle SW4</b>	Each			
35	<b>Depth Gauge 20 - 100mm</b>	Each			
36	<b>Curved Plain Rod 2.8mm x 46mm</b>	Each			
37	<b>Drill Bit Q.C 4.0mm x 220mm</b>	Each			
38	<b>Spiral Blade Tightening wrench</b>	Each			
39	<b>Wrench 11mm</b>	Each			
40	<b>Green Sleeve 8.1mm</b>	Each			
41	<b>Green Sleeve 4.1mm</b>	Each			
42	<b>Green Trocar 4.0mm</b>	Each			
43	<b>T Positioning Rod 09mm</b>	Each			
44	<b>T Positioning Rod 10mm</b>	Each			
45	<b>Short Sleeve 08mm</b>	Each			
46	<b>Targeted for distal Distal screw</b>	Each			
47	<b>Radiolucent Jig for 260-340 with bolt</b>	Each			
48	<b>Sleeve 8 / 6mm</b>	Each			
49	<b>Trocar 6mm</b>	Each			
50	<b>Drill Bit Q/C 6mm</b>	Each			
51	<b>Positioning rod Drill Q/C 6mm</b>	Each			
52	<b>Distal Aiming Bar</b>	Each			
53	<b>Radiolucent Bolt</b>	Each			
54	<b>Radiolucent Connecting Bolt</b>	Each			
55	<b>E Block</b>	Each			

56	Radiolucent Jig for 360-420 with bolt	Each			
Q.	REAMERS SET		Each Set Price		
1	reamer shaft $\Phi 7.5-\Phi 8$	Each			
2	reamer shaft $\Phi 8.5-\Phi 14$	Each			
3	reamer shaft $\Phi 8.5-\Phi 14$ (standby application)	Each			
4	reamer head $\Phi 7.5$	Each			
5	reamer head $\Phi 8$	Each			
6	reamer head $\Phi 8.5$	Each			
7	reamer head $\Phi 9$	Each			
8	reamer head $\Phi 9.5$	Each			
9	reamer head $\Phi 10$	Each			
10	reamer head $\Phi 10.5$	Each			
11	reamer head $\Phi 11$	Each			
12	reamer head $\Phi 11.5$	Each			
13	reamer head $\Phi 12$	Each			
14	reamer head $\Phi 12.5$	Each			
15	reamer head $\Phi 13$	Each			
16	reamer head $\Phi 13.5$	Each			
17	reamer head $\Phi 14$	Each			
18	guide pin olive $\Phi 2.5/1000$	Each			
19	special instrument	Each			
20	Quick copping Handle (Whip) the handle	Each			
21	Depth gauge	Each			
22	guide wire impactor	Each			

23	instrument case	Each			
R.	AUSTIN MOORE HIP PROSTHESIS INSTRUMENT SET		Each Set		
1	ALUMINIUM CONTAINER	Each			
2	SPATUL CURETTE	Each			
3	FEMORAL HEAD EXTRACTOR	Each			
4	FEMORAL HEAD IMPACTOR	Each			
5	UNIVERSAL DRIVER AND EXTRECTOR	Each			
6	MOORE MORTISING CHISEL	Each			
7	MODULAR RASP BAR	Each			
8	MOORE RASP SHORT	Each			
9	MOORE RASP LONG	Each			
10	NARROW MOORE RASP	Each			
11	NARROW MOORE RASP LONG	Each			
S.	EXTERNAL FIXATOR LARGE INSTRUMENT SET		Each Set		
1	External Fixator (Large) Instruments Set (Empty)-PPSU	Each			
2	Combination Wrench, SW11	Each			
3	Ratchet Wrench, SW11	Each			
4	T-Wrench, SW11	Each			
5	T-Clip	Each			
6	Trocar $\phi$ 3.5, short	Each			
7	Drill Sleeve 5.0/3.5, short	Each			

8	<b>Drill Sleeve 6.0/5.0, threaded, short</b>	Each			
9	<b>Trocar <math>\phi</math>3.5, long</b>	Each			
10	<b>Drill Sleeve 5.0/3.5, long</b>	Each			
11	<b>Drill Sleeve 6.0/5.0, threaded, long</b>	Each			
12	<b>Drill Bit, <math>\phi</math>3.5mm</b>	Each			
13	<b>Handle for Drill Sleeve</b>	Each			
<b>T.</b>	<b>External Fixator (Medium) Instruments Set</b>		Each Set Price		
1	<b>External Fixator (Medium) Instruments Set (Empty)-PPSU</b>	Each			
2	<b>Combination Wrench, SW8</b>	Each			
3	<b>T-Wrench, SW8</b>	Each			
4	<b>T-Clip</b>	Each			
5	<b>Trocar, <math>\phi</math>2.5mm</b>	Each			
6	<b>Drill Sleeve 4.0/2.5</b>	Each			
7	<b>Drill Sleeve <math>\phi</math>4.0, with Thread</b>	Each			
8	<b>Drill Bit, <math>\phi</math>2.0mm</b>	Each			
9	<b>Drill Bit, <math>\phi</math>3.5mm</b>	Each			
10	<b>Handle for Drill Sleeve</b>	Each			
<b>U.</b>	<b>BIPOLAR INSTRUMENT SET</b>		Each Set Price		
1	<b>Acetabular Reamer size 42</b>	Each			
2	<b>Acetabular Reamer size 44</b>	Each			
3	<b>Acetabular Reamer size 46</b>	Each			
4	<b>Acetabular Reamer size 48</b>	Each			

5	<b>Acetabular Reamer size 50</b>	Each			
6	<b>Acetabular Reamer size 52</b>	Each			
7	<b>Acetabular Reamer size 54</b>	Each			
8	<b>Acetabular Reamer size 56</b>	Each			
9	<b>Acetabular Reamer size 58</b>	Each			
10	<b>Acetabular Reamer size 60</b>	Each			
11	<b>Acetabular Reamer handle</b>	Each			
12	<b>Caliper</b>	Each			
13	<b>Screw Holder</b>	Each			
14	<b>Acetabular Drill</b>	Each			
15	<b>Screw Depth Gauge</b>	Each			
16	<b>Trial Handle</b>	Each			
17	<b>Alignment Guide</b>	Each			
18	<b>Bipolar Trial Cup size 38(Blue)</b>	Each			
19	<b>Bipolar Trial Cup size 40(Blue)</b>	Each			
20	<b>Bipolar Trial Cup size 42(Blue)</b>	Each			
21	<b>Bipolar Trial Cup size 44(Blue)</b>	Each			
22	<b>Bipolar Trial Cup size 46(Black)</b>	Each			
23	<b>bipolar Trial Cup size 48(Black)</b>	Each			
24	<b>bipolar Trial Cup size 50(Black)</b>	Each			
25	<b>bipolar Trial Cup size 52(Black)</b>	Each			
26	<b>bipolar Trial Cup size 54(Black)</b>	Each			
27	<b>bipolar Trial Cup size 56(Black)</b>	Each			
28	<b>Pressing sleeve Size 22</b>	Each			
29	<b>Pressing sleeve Size 28</b>	Each			

<b>30</b>	<b>Acetabular Inserter Handle</b>	Each			
<b>31</b>	<b>Cement Impactor (Acetabulum Side)</b>	Each			
<b>32</b>	<b>Acetabular Cement Pusher Blue</b>	Each			
<b>33</b>	<b>Universal Screwdriver</b>	Each			
<b>34</b>	<b>Screw drill Guide</b>	Each			
<b>35</b>	<b>Soft drill 3.2 x 200</b>	Each			
<b>36</b>	<b>Soft drill 3.2 x 210</b>	Each			
<b>37</b>	<b>Liner Impactor size 22 (Black)</b>	Each			
<b>38</b>	<b>Liner Impactor size 28 (Green)</b>	Each			
<b>39</b>	<b>Acetabular Cup Inserter</b>	Each			
<b>40</b>	<b>Acetabular Trial Cup size 42</b>	Each			
<b>41</b>	<b>Acetabular Trial Cup size 44</b>	Each			
<b>42</b>	<b>Acetabular Trial Cup size 46</b>	Each			
<b>43</b>	<b>Acetabular Trial Cup size 48</b>	Each			
<b>44</b>	<b>Acetabular Trial Cup size 50</b>	Each			
<b>45</b>	<b>Acetabular Trial Cup size 52</b>	Each			
<b>46</b>	<b>Acetabular Trial Cup size 54</b>	Each			
<b>47</b>	<b>Acetabular Trial Cup size 56</b>	Each			
<b>48</b>	<b>Acetabular Trial Cup size 58</b>	Each			
<b>49</b>	<b>Acetabular Trial Cup size 60</b>	Each			
<b>50</b>	<b>Femoral Canal Reamer size 0/00</b>	Each			
<b>51</b>	<b>Femoral Canal Reamer size 1/2</b>	Each			
<b>52</b>	<b>Femoral Canal Reamer size 3/4</b>	Each			
<b>53</b>	<b>Femoral Canal Reamer size 5/6</b>	Each			
<b>54</b>	<b>Curved Hohman Retractor</b>	Each			

55	<b>T Handle for Reamer</b>	Each			
56	<b>Proximal Femur Seal</b>	Each			
57	<b>Neck Trial size 00/2</b>	Each			
58	<b>Neck Trial size 03</b>	Each			
59	<b>Neck Trial size 4/5</b>	Each			
60	<b>Femoral Head Trial size 22/0</b>	Each			
61	<b>Femoral Head Trial size 22/+4</b>	Each			
62	<b>Femoral Head Trial size 22/+8</b>	Each			
63	<b>Femoral Head Trial size 28/-4</b>	Each			
64	<b>Femoral Head Trial size 28/0</b>	Each			
65	<b>Femoral Head Trial size 28/+4</b>	Each			
66	<b>Femoral Head Trial size 28/+8,</b>	Each			
67	<b>Femoral Head Impactor</b>	Each			
68	<b>Curve Rasp</b>	Each			
69	<b>Cemented stem Broaches size 00</b>	Each			
70	<b>Cemented stem Broaches size 0</b>	Each			
71	<b>Cemented stem Broaches size 1</b>	Each			
72	<b>Cemented stem Broaches size 2</b>	Each			
73	<b>Cemented stem Broaches size 3</b>	Each			
74	<b>Cemented stem Broaches size 4</b>	Each			
75	<b>Cemented stem Broaches size 5</b>	Each			
76	<b>Stem Impactor</b>	Each			
77	<b>Hammer</b>	Each			
78	<b>Calcar Planner</b>	Each			
79	<b>Cork Screw</b>	Each			

<b>80</b>	<b>Osteotome Resection Guide</b>	Each			
<b>81</b>	<b>Stem Restrictor Stem Handle</b>	Each			
<b>82</b>	<b>Stem Inserter</b>	Each			
<b>83</b>	<b>Stem Impactor/extractor</b>	Each			
<b>84</b>	<b>Offset Box Osteotome</b>	Each			
<b>85</b>	<b>Universal Impactor</b>	Each			
<b>86</b>	<b>Broach Handle</b>	Each			
<b>V.</b>	<b>ILIZAROV SET</b>		Each Set Price		
<b>1</b>	<b>Container</b>	Each			
<b>2</b>	<b>Wire tightener</b>	Each			
<b>3</b>	<b>Round wire tightener</b>	Each			
<b>4</b>	<b>wire cutter plier</b>	Each			
<b>5</b>	<b>T - Wrench</b>	Each			
<b>6</b>	<b>socket Wrench</b>	Each			
<b>7</b>	<b>Ratchet Wrench</b>	Each			
<b>8</b>	<b>Drill Guide Ø 3.2 mm</b>	Each			
<b>9</b>	<b>Drill Guide Ø 3.5 mm</b>	Each			
<b>10</b>	<b>Drill Guide Ø 4.5 mm</b>	Each			
<b>11</b>	<b>Sleeve Guide 200789</b>	Each			
<b>12</b>	<b>Open wrench and Circular End 10 mm</b>	Each			
<b>13</b>	<b>Open wrench and Circular End 12 - 13 mm</b>	Each			
<b>14</b>	<b>Osteotome 10 mm</b>	Each			
<b>15</b>	<b>Drill with Stopper Ø 3.2 x 200 mm 085331</b>	Each			

16	<b>Drill with Stopper Ø 3.5 x 200 mm 085348</b>	Each			
17	<b>Drill with Stopper Ø 4.5 x 200 mm</b>	Each			
<b>W</b>	<b>Standard/ Orthopaedic General Instrument Set:</b>		Each Set Price		
	<b>1. General Considerations</b>				
.	<b>Material: High-grade surgical stainless steel (AISI 304 / 316)</b>				
.	<b>Finish: Polished, matte or passivated</b>				
.	<b>Sterilization: Autoclavable at 121–134°C</b>				
.	<b>Ergonomics: Instruments with ratchets, serrations, and handle grips for firm hold</b>				
<b>#</b>	<b>Instrument</b>				
<b>1</b>	<b>Osteotome: Approx.Size/Length: 4, 6, 8, 10, 12, 16mm Purpose: Cutting or shaping bone</b>	Each			
<b>2</b>	<b>Chisel: Approx.Size/Length: 6, 8, 10, 12 mm Purpose: Bone carving / sculpting</b>	Each			
<b>3</b>	<b>Bone cutter (Hand) Approx.Size/Length: 25–30 cm Purpose: Cutting long bones / joint cuts</b>	Each			
<b>4</b>	<b>Wire Cutters Approx.Size/Length: 12–20 cm Purpose: Cutting K-wires / cerclage wires</b>	Each			
<b>5</b>	<b>Bone Holding Forceps Approx.Size/Length: 15–25 cm Purpose: Reduce / hold bone fragments</b>	Each			

6	<b>Reduction Clamps</b> Approx.Size/Length: 12–20 cm Purpose: Fracture reduction & stabilization	Each			
7	<b>Towel / Tissue Forceps</b> Approx.Size/Length: 12–20 cm Purpose: Soft tissue handling	Each			
8	<b>Kocher Forceps</b> Approx.Size/Length: 15–18 cm Purpose: Heavy tissue clamping	Each			
9	<b>Hohmann Retractor</b> Approx.Size/Length: 10–30 cm Purpose: Soft tissue / bone exposure	Each			
10	<b>Army-Navy Retractor</b> Approx.Size/Length: 15–25 cm Purpose: Superficial soft tissue retraction	Each			
11	<b>Farabeuf Retractor</b> Approx.Size/Length: 12–20 cm Purpose: Small incision retraction	Each			
12	<b>Weitlaner Self-Retaining Retractor</b> Approx.Size/Length: 10–15 cm Purpose: Hands-free tissue hold	Each			
13	<b>Periosteal Elevator</b> Approx.Size/Length: 15–25 cm Purpose: Elevate periosteum / soft tissue	Each			
14	<b>Cobb Elevator</b> Approx.Size/Length: 10–20 cm Purpose: Leverage bone fragments	Each			
15	<b>Bone Probe</b> Approx.Size/Length: 15–25 cm Purpose: Explore fractures / canal	Each			
16	<b>Depth Gauge</b> Approx.Size/Length: 12–20 cm Purpose: Measure screw lengths	Each			
17	<b>Ruler / Caliper</b> Approx.Size/Length: 15–30 cm	Each			

	<b>Purpose: Bone / implant measurement</b>				
<b>18</b>	<b>Drill Bits</b> <b>Approx.Size/Length: 2.0–6.5 mm</b> <b>Purpose: For screws / pins</b>	Each			
<b>19</b>	<b>T-Handle / Chuck</b> <b>Approx.Size/Length: 15–25 cm</b> <b>Purpose: Hold drill bits or K-wires</b>	Each			
<b>20</b>	<b>Tap</b> <b>Approx.Size/Length: 2.5–5.0 mm</b> <b>Purpose: Prepare threaded holes for screws</b>	Each			
<b>21</b>	<b>Screwdrivers (Flat / Cross)</b> <b>Approx.Size/Length: 12–20 cm</b> <b>Purpose: Plates &amp; screws</b>	Each			
<b>22</b>	<b>K-Wires</b> <b>Approx.Size/Length: 1.0–2.0 mm</b> <b>Purpose: Temporary / definitive fixation</b>	Each			
<b>23</b>	<b>Wire Bender</b> <b>Approx.Size/Length: 12–15 cm</b> <b>Purpose: Shape K-wires / cerclage wires</b>	Each			
<b>24</b>	<b>Wire Tensioner</b> <b>Approx.Size/Length: 12–20 cm</b> <b>Purpose: Apply tension to wires</b>	Each			
<b>25</b>	<b>Mallet</b> <b>Approx.Size/Length: 250–500 g</b> <b>Purpose: Impact osteotomes / chisels</b>	Each			
<b>26</b>	<b>Needle Holder</b> <b>Approx.Size/Length: 15 cm</b> <b>Purpose:Suture placement</b>	Each			
<b>27</b>	<b>Scissors (Tissue / Wire)</b> <b>Approx.Size/Length: 12–18 cm</b> <b>Purpose:Cutting soft tissue / wires</b>	Each			
<b>28</b>	<b>Suction Tip</b> <b>Approx.Size/Length: 10–15 cm</b> <b>Purpose:Blood / irrigation suction</b>	Each			

29	<b>Bone Hook</b> Approx.Size/Length: 15–25 cm Purpose: Manipulate bone fragments	Each			
30	<b>Periosteal Elevator (Curved)</b> Approx.Size/Length: 15–20 cm Purpose: Elevate periosteum around curved bones	Each			
31	<b>Bone Awl / Pin Inserter</b> Approx.Size/Length: 12–20 cm Purpose: Make pilot holes for K-wires	Each			
32	<b>Langenbeck Retractor</b> Approx.Size/Length: 15–25 cm Purpose: Soft tissue retraction	Each			
33	<b>Tension Band Wire Passer</b> Approx.Size/Length: 12–20 cm Purpose: Cerclage wire placement	Each			
34	<b>Pin Cutter / Heavy Wire Cutter</b> Approx.Size/Length: 15–20 cm Purpose: Cut larger wires / pins	Each			
36	<b>Sponge / Dressing Forceps</b> Approx.Size/Length: 15–20 cm Purpose: Holding gauze / sponge	Each			
37	<b>Periosteal Elevator (Small)</b> Approx.Size/Length: 12–15 cm Purpose: Fine bone exposure / pediatrics	Each			
38	<b>Bone Levers</b> Approx.Size/Length: 12–20 cm Purpose: Manipulate bone fragments	Each			
39	<b>Reduction Pins</b> Approx.Size/Length: 2.0–3.0 mm Purpose: Temporary fracture fixation	Each			
40	<b>Towel Clips</b> Approx.Size/Length: 10–15 cm Purpose: Secure drapes / small tissue	Each			

<b>II</b>	<b>Surgical OT</b>		Each Set Price		
<b>1</b>	<b>Clip Applicator</b>	Each			
<b>2</b>	<b>Laprosopic Grasping Forceps (Youheen, Medium jaw)</b>	Each			
<b>3</b>	<b>Suction Irrigation Canula (Small )</b>	Each			
<b>4</b>	<b>Suction Irrigation Canula (Large )</b>	Each			
<b>5</b>	<b>Scisor</b>	Each			
<b>6</b>	<b>Marryland Forceps</b>	Each			
<b>7</b>	<b>Cystoscope rigid forcep</b>	Each			
<b>8</b>	<b>Cystoscope flexible biopsy forceps</b>	Each			
<b>9</b>	<b>Cuttig sets for OT and Ward</b>	Each			
<b>10</b>	<b>Dressing Drum</b>	Each			
<b>11</b>	<b>Mediastinoscopy Set</b>	Each			
<b>12</b>	<b>Abraham Pleural Biopsy Needle</b>	Each			
<b>III</b>	<b>Instruments for A&amp;E</b>		Each Set Price		
<b>1</b>	<b>Artery Forceps</b>	Each			
<b>2</b>	<b>Mosquito Artery Forceps</b>	Each			
<b>3</b>	<b>Mayo Scissor</b>	Each			
<b>4</b>	<b>Suture Cutting Scissor</b>	Each			
<b>5</b>	<b>Needle Holder</b>	Each			
<b>6</b>	<b>Plan Forceps</b>	Each			
<b>7</b>	<b>Tooth Forceps</b>	Each			
<b>8</b>	<b>BP Handle 04no</b>	Each			
<b>9</b>	<b>BP Handle 07no</b>	Each			

<b>10</b>	<b>Allis Tissue Forceps</b>	Each			
<b>11</b>	<b>Babocok Forceps</b>	Each			
<b>12</b>	<b>Right Angle Retractor</b>	Each			
<b>13</b>	<b>Catpw Retractor</b>	Each			
<b>14</b>	<b>Spon Holding Forceps</b>	Each			

**LOT No. 2**

<b>* Note</b>	<b><i>Unit price and Box price will be quoted for each item and set.</i></b>				
<b>IV</b>	<b>INSTRUMENTS FOR GYNAE</b>		Each Set		
<b>A.</b>	<b>Cesarean Section (C-Section) SET</b>		Each Set		
<b>B.</b>	<b>Total Abdominal Hestectomy ( T.A.H Set)</b>		Each Set		
<b>C</b>	<b>Veginal Hestectomy (VH SET)</b>		Each Set		
<b>D</b>	<b>Vasico Vaginal Fistula V.V.F Set</b>		Each Set		
<b>E</b>	<b>Dailatation And Curetation D.N.C Set</b>		Each Set		
<b>F</b>	<b>Debrainment And Dressing ( D/D) SET</b>		Each Set		
<b>G</b>	<b>Miscelenous Instrument</b>		Each Set		
<b>H</b>	<b>Diagnostic Laproscopic Instruments</b>		Each Set		
<b>I</b>	<b>Laparoscopy And Hysteroscopy Instruments</b>		Each Set		
<b>J</b>	<b>Colposcopy Instrument</b>		Each Set		
<b>K</b>	<b>E&amp;C Set</b>		Each Set		
<b>A</b>	<b>CESAREAN SECTION (C-Section) SET</b>		Each Set Price		
<b>1</b>	<b>Sponge holder</b>	Each			

2	Green army tag Forceps	Each			
3	Aliss Forceps	Each			
4	Artery forceps (medium Curved)	Each			
4	Artery forceps (medium Straight)	Each			
5	Towel clamps	Each			
6	Needle holder ( different size)	Each			
7	Scissors Straight	Each			
7	Scissors Curved surgeon	Each			
8	Plain forceps	Each			
9	Tooth forceps	Each			
10	Knife handle 4size	Each			
11	Doyen's n 's Retractor	Each			
12	Kidney tray Medium	Each			
13	Bowels small size	Each			
14	Bowel medium size	Each			
15	Tray for instruments	Each			
<b>B</b>	<b>TOTAL ABDOMINAL HESTECTOMY ( T.A.H Set)</b>		Each Set Price		
1	Curved clamps Large	Each			
2	Straights clamps Large	Each			
3	Allississ	Each			
4	Lanz's forcep	Each			
5	Artery forcep (curved medium size)	Each			
6	Artery forcep (straight medium size)	Each			
7	Towel clamps	Each			

8	Sponge holder	Each			
9	Deaver Retractor Different Size (Large)	Each			
10	Deaver Retractor Different Size (Medium)	Each			
11	Deaver Retractor Different Size (small)	Each			
12	Babcock forcep	Each			
13	Myomectomy screw	Each			
14	Gut suction tap e' guard	Each			
15	Knife handle 4 size	Each			
16	Needle holder	Each			
17	Plain forcep	Each			
18	Tooth forcep	Each			
19	Scissors (straight, medium)	Each			
20	Scissors (curved medium)	Each			
21	Kidney tray	Each			
22	Bowels small size	Each			
23	Bowel medium size	Each			
24	Tray for instruments	Each			
C	VEGINAL HESTECTOMY (VH SET)		Each Set Price		
1	Sponge holder	Each			
2	Volsellum	Each			
3	Robert clamps curved large	Each			
4	Straight clamps large	Each			
5	Alisiss	Each			
6	Artery forcep curved (medium)	Each			

7	Artery forcep curved (small)	Each			
8	Towel clamp	Each			
9	Langing bag	Each			
10	Uterine sound	Each			
11	Kidney tray large	Each			
12	Knife handle 4 size	Each			
13	Plain forcep	Each			
14	Tooth forcep	Each			
15	Needle holder	Each			
16	Scissors (surgeon curved fine tip)	Each			
17	Scissors straight	Each			
18	Sim speculum small size	Each			
19	Sim speculum large size	Each			
20	Bowels small size	Each			
21	Bowel large size	Each			
22	Tray for instruments	Each			
23	Czerny's retractor	Each			
<b>D</b>	<b>VASICO VAGINAL FISTULA V.V.F SET</b>		Each Set Price		
1	Sponge holding forceps	Each			
2	Allis	Each			
3	Artery forcep Curved (Medium)	Each			
3	Artery forcep Curved (Small)	Each			
4	Towel Clamps	Each			
5	Needle holder different size	Each			

6	Plain forcep	Each			
7	Fine scissors straight	Each			
8	Fine scissors curved	Each			
9	Kidney Tray large	Each			
10	Bowels small Size	Each			
11	Fine Tooth forcep	Each			
12	Langing bag small size	Each			
13	Sim speculum small size	Each			
14	Mosquito artery forcep	Each			
15	Sponge holder small size	Each			
16	Nasal speculum	Each			
17	Czeney's retractors	Each			
E	<b>DAILATATION AND CURETATION (D.N.C SET)</b>		Each Set Price		
1	Kidney Tray large	Each			
2	Sponge holder	Each			
3	Utrine sound	Each			
4	Sim speculum Different size (small)	Each			
4	Sim speculum Different size (large)	Each			
5	Wolsellum	Each			
6	Bowels small size	Each			
7	Currete different size	Each			
8	Dailator 4-8size	Each			
9	Taneculum	Each			
10	Ovum forcep	Each			

11	Plain forcep	Each			
12	Needle holder	Each			
13	IUCD retrieval hook	Each			
12	Scissor (curved, straight)	Each			
<b>F</b>	<b>DEBRAINMENT AND DRESSING ( D/D) SET</b>		Each Set Price		
1	Sponge holder	Each			
2	Allis Forceps	Each			
3	Artery forcep Curved (medium)	Each			
3	Artery forcep Curved (small)	Each			
4	Towel Clamps	Each			
5	Needle holder different size	Each			
6	Plain forcep	Each			
7	Knife handle 4 size	Each			
8	Knife handle 3 size	Each			
9	Kidney Tray medium size	Each			
10	Bowels small Size	Each			
11	Tooth forcep	Each			
<b>G</b>	<b>MISCELENOUS INSTRUMENT</b>		Each Set Price		
1	Babcock	Each			
2	Czarney's Retractors	Each			
3	Knife handle 4 size	Each			
4	Knife handle 3 size	Each			
5	Outlet forcep or baby holding forcep	Each			

6	<b>Right angel forcep</b>	Each			
7	<b>Intestinal clamp</b>	Each			
8	<b>Non crushing</b>	Each			
9	<b>Scissors curved</b>	Each			
10	<b>Scissors straight</b>	Each			
11	<b>Plain forcep</b>	Each			
12	<b>Artery forcep</b>	Each			
13	<b>Sim speculum</b>	Each			
14	<b>Curete small size</b>	Each			
15	<b>Dilatators 6 size</b>	Each			
16	<b>Dilatator 7 size</b>	Each			
17	<b>Dilatator 8 size</b>	Each			
18	<b>Sponge holder small size</b>	Each			
19	<b>Polypectomy forcep</b>	Each			
20	<b>Green Army</b>	Each			
21	<b>Curved clamp large</b>	Each			
22	<b>Straight clamp large</b>	Each			
23	<b>Fine surgeon scissors</b>	Each			
24	<b>Cusces speculum small</b>	Each			
25	<b>Cusces speculum</b>	Each			
26	<b>Proctoscup</b>	Each			
27	<b>Punch biopsy forceps</b>	Each			
28	<b>Duck Speculum</b>	Each			
29	<b>Spatula</b>	Each			
30	<b>Clinching Forceps (Length of Jaw 26mm</b>	Each			

31	<b>Maryland Forceps with Cross Tooth Pattern (Length of Jaw 17mm)</b>	Each			
32	<b>Maryland Forceps (Length of Jaw 21mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
33	<b>Johan Forceps (Length of Jaw 21mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
34	<b>Manhes Forceps (Length of Jaw</b>	Each			
35	<b>18mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
36	<b>Clinching Forceps (Length of Jaw 26mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
37	<b>Hysteroscopy Micro Scissor S/S Single Action, Semi Acion, Semi rigid 5Fr. 40cm HE18-23338(Length of Jaw 26mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
38	<b>Hysteroscopy Micro Scissor S/S Single Action, Semi Acion, Semi rigid 5Fr. 40cm HE18-23338(Length of Jaw 26mm), Monopolar, rotating, with pin without ratchet, with insulating shaft.</b>	Each			
39	<b>BR Surgical Scissor for Hysteroscope (Flexible scissor, single action, 5FRx40cm)</b>	Each			
40	<b>Angle cutting loop Electrode, dimension : 19/22 Fr (Part No. STS - HYS-340-03</b>	Each			
41	<b>Knot Tier: size 5mm, working length 36cm, for extracorporeal knotting.</b>	Each			
42	<b>Needle holder with parrrto Jaw:- Straight handle, with ratchet size 5mm, length33cm</b>	Each			

<b>H</b>	<b>DIAGNOSTIC LAPROSCOPIC INSTRUMENTS</b>		Each Set Price		
<b>1</b>	<b>Kidney Tray</b>	Each			
<b>2</b>	<b>Sponge holder</b>	Each			
<b>3</b>	<b>Utrine sound</b>	Each			
<b>4</b>	<b>Sim speculum different size</b>	Each			
<b>5</b>	<b>Volsellum</b>	Each			
<b>6</b>	<b>Bowels small size</b>	Each			
<b>7</b>	<b>Currete different size</b>	Each			
<b>8</b>	<b>Dailator</b>	Each			
<b>9</b>	<b>Taneculum</b>	Each			
<b>10</b>	<b>Ovum forcep</b>	Each			
<b>11</b>	<b>Plain forcep</b>	Each			
<b>12</b>	<b>Needle holder</b>	Each			
<b>13</b>	<b>Knife handle No.4</b>	Each			
<b>14</b>	<b>Knife handle No.3</b>	Each			
<b>15</b>	<b>Towel clamp</b>	Each			
<b>16</b>	<b>Artery forcep</b>	Each			
<b>17</b>	<b>Tooth forcep</b>	Each			
<b>18</b>	<b>Needle Forceps</b>	Each			
<b>19</b>	<b>Rubin's Cannula</b>	Each			
<b>I.</b>	<b>HYSTEROSCOPY INSTRUMENTS</b>		Each Set		
<b>1</b>	<b>Hysteroscopy Scissor (Flexible)</b>	Each			
<b>2</b>	<b>Hysteroscopy Grasper (Flexible)</b>	Each			
<b>3</b>	<b>Resectoscopic Loops (size 22)</b>	Each			

4	<b>Resectoscopic Rolling Ball (Size 22)</b>	Each			
6	<b>Resectoscope</b>	Each			
7	<b>Guide Wire</b>	Each			
8	<b>Hysteroscopy (Inner + Outer) Sheet</b>	Each			
9	<b>Cystoscopye Flexible Biopsy Forcep</b>	Each			
10	<b>Hysteroscopy Knife (Size 22)</b>	Each			
<b>J.</b>	<b>LAPAROSCOPY INSTRUMENTS</b>		Each Set Price		
1	<b>Disposable port</b>	Each			
2	<b>Ellices Grasper OR Claw Forceps</b>	Each			
3	<b>Youhan Forceps</b>	Each			
4	<b>Varese Needle</b>	Each			
5	<b>Trocar Spring action 5mm, 10mm</b>	Each			
<b>K</b>	<b>Colposcopy Instrument</b>		Each Set Price		
1	<b>Sponge Holding Forceps</b>	Each			
2	<b>Cuscos's Speculum</b>	Each			
3	<b>Endo Cervical Speculum</b>	Each			
4	<b>Tenaculum</b>	Each			
5	<b>Plain Forceps</b>	Each			
6	<b>Lateral Vaginal Wall retractor</b>	Each			
7	<b>Endocervical Curette</b>	Each			
8	<b>Needle Holder</b>	Each			
<b>K</b>	<b>E&amp;C Set</b>		Each Set Price		

**S.NO 08: LOT-IT HARDWARE & NETWORKING ACCESSORIES)****(MULTIPLE LOTS)**

<b>LOT No. 1</b>		
<b>S.No</b>	<b>Item</b>	<b>Specification</b>
1.1	<b>Hardware Tool kit</b>	<i>Screw driver Set: Flat Tip Screw driver: Philips head screw driver set Wire Cutter, Needle Nose Plier, wire stripper, Tweezer, Hammer, Alcohol swabs, Insta computer cleaner, Tester, wire brush, Scissor, Measuring Tape, Soft dust cleaning Brush:</i>
1.2	<b>Network tool kit</b>	Pvc box:  42Cable tester, screwdriver straight and cross,cable peeler,crimping tool, io's punch tool, alcohol swabs.

<b>LOT No. 2</b>		
<b>S.No</b>	<b>Item</b>	<b>Specification</b>
2.1	<b>Token LED Display</b>	Char: 6 max, Pitch: 3.5mm, Resolution: 16x48, Color: (Red+ Green+ Amber), Power: 10Watt (max) 12VDC, Protocol: TCP/IP, POE Passive, Wall/Ceiling Bracket
2.2	<b>POE Passive Switch</b>	Compatible with <b>Token LED Display</b> or 8 port with uplink port

<b>LOT No. 3</b>		
<b>S.No</b>	<b>Item</b>	<b>Specification</b>
3.1	<b>Hard disk Seagate or equivalent</b>	500GB
		1TB
		2TB
		4TB
		8TB
		16TB
		32TB
		2.5" SAS HDD Disk Space: 1TB Capable Speed: 12Gbps
		2.5" SAS SSD Disk Space: 1TB Capable Speed: 12Gbps
		Laptop SSD = 256GB,512GB
3.2	<b>Portable Backup hard drive</b>	1TB
		2TB
		4TB
3.3	<b>External SSD hard drive Samsung or equivalent</b>	128GB
		256GB
		512GB
		2TB
		4TB
		8TB

	RAM Kingston or equivalent	DDR3:4GB
		DDR3:8GB
		DDR4:4GB DDR4:8GB DDR4:16GB
3.4	Server RAM	DDR-4 2400 MHz
	Server RAM	DDR-4 3200 MT/s
3.5	USB	16GB 32GB 64GB 128GB 256GB

#### LOT No. 4

S,No	Item	Specification
4.1	<b>Canon LBP-226 Parts</b>	<ol style="list-style-type: none"> <li>1. Sleeve film</li> <li>2. Pressure Roller</li> <li>3. Heating Unit Element</li> <li>4. USB Port Jack</li> <li>5. Capacitor(400V,120uF)</li> <li>6. Power Supply Fuse()</li> <li>7. Page Pick Up Roller</li> <li>8. Complete Fuser Unit Assembly</li> <li>9. Complete Power Supply Unit</li> </ol> Complete Fuser Assembly Unit(LBP-351-Canon)
4.2	<b>Canon LBP-246 Parts</b>	<ol style="list-style-type: none"> <li>1. Sleeve film</li> <li>2. Pressure Roller</li> <li>3. Heating Unit Element</li> <li>4. USB Port Jack</li> <li>5. Capacitor(400V,120uF)</li> <li>6. Power Supply Fuse()</li> </ol>

		<ul style="list-style-type: none"> <li>7. Page Pick Up Roller</li> <li>8. Complete Fuser Unit Assembly</li> <li>9. Complete Power Supply Unit</li> </ul> <p>Complete Fuser Assembly Unit(LBP-351-Canon)</p>				
4.3	<b>HP Printer Parts</b>	<ul style="list-style-type: none"> <li>1. Sleeve film(402/404)</li> <li>2. Pressure Roller(402/404)</li> <li>3. Sleeve film(400Pro)</li> <li>4. Pressure Roller(400Pro)</li> <li>5. Sleeve film(1102/1005)</li> </ul> <p>Pressure Roller(1102/1005)</p>				
4.4	<b>Canon Cartridge Parts</b>	<ul style="list-style-type: none"> <li>1. OFC Drum</li> <li>2. Magnetic Roller</li> <li>3. Doctor Blade</li> <li>4. Developer roller</li> </ul>				
4.5	Cable	Computer Power Cable				
		LCD VGA Cable				
		VGA Cable long (30M,50M)				
		HDMI Cable (1M)				
		D to D Cable(1M)				
		HDMI Cable:	<table border="1" style="width: 100%;"> <tr> <td>10metr</td> </tr> <tr> <td>15meter</td> </tr> <tr> <td>30meter</td> </tr> <tr> <td>50meter</td> </tr> <tr> <td>Printer USB Cable</td> </tr> </table>	10metr	15meter	30meter
10metr						
15meter						
30meter						
50meter						
Printer USB Cable						
4.6	Card	Internal LAN Card				
		Internal VGA Card				
		External LAN Card				
4.7	Connector	HDMI Cable Connector				
		HDMI to VGA Convertor				
		VGA to VGA Connector				
		DVI to VGA Connector				

<b>LOT No. 5</b>		
5.1	<b>Drum assembly unit (Samsung)</b>	Drum assembly unit for MLT-R116 Imaging Unit.
5.2	<b>Printer Cartridge Refilling Material</b>	DRY INK ( B/W)(TONER)(120g)HP
5.3	<b>LCD/LED Screen Dell/HP or Equivalent</b>	21.5” and 18.5” Display for back up
5.4	<b><i>Paper Roll</i></b>	80mm for thermal Receipt printer
5.5	<b><i>Sticker Roll</i></b>	Label sticker Roll for label printer different sizes
5.6	<b><i>Ribbon</i></b>	Ribbon for Patient PVC Card Printer/CS-2 series-hiti printer
5.7	<b><i>Toner</i></b>	Toner for RFID Card Printer
5.8	<b><i>Film</i></b>	Re-Transfer film for RFID Card Printer
5.9	<b><i>Laminator</i></b>	Laminator for RFID Card Printer
5.10	<b><i>RFID Card</i></b>	RFID Cards <ul style="list-style-type: none"> <li>• 13.56 MHz passive RFID card, ISO/IEC 14443A compliant (MIFARE Classic 1K or higher security chip)</li> <li>• CR80 standard PVC card (85.6 × 54 mm), laminated, durable, full-color double-sided printing</li> <li>• Unique UID with minimum 10-year data retention and ≥100,000 write cycles</li> <li>• Compatible with RFID readers and Hospital Information Management System (HMIS/EMR)</li> <li>• Optional features: QR code printing and encrypted security for advanced integration</li> </ul>
5.11	<b><i>Card Cover</i></b>	Card Cover With Ribbon(Different Colors)
5.12	<b><i>Wrist Band Label</i></b>	Label for Wrist band Printer
5.13	<b><i>DRY Battery</i></b>	Dry Battery:12V,9.0AH
5.14	<b><i>Computer UPS</i></b>	Back UP UPS for Computer system(10-15Mins)
5.15	<b><i>Optical Drive</i></b>	<b>Optical Drive</b> external CD/DVD Drive (R/W)

### Network Accessories Specifications

<b>LOT No. 06</b>		
<b>SNo.</b>	<b>Items</b>	<b>Specification</b>
6.1	Cable role	305 meter, SFTP,cat-6,23AWG (Imported)
6.2	Rj 45 Connector	RJ-45 connectors (pass through) rate / box 100 qty
6.3	Cable hock	Cat-6 cable hook 6mm
	Cable -Tie	
6.4	Cable Manager	19" 1U metal cable management AMP style Suitable for 19 inch standard cabinets and wall mount Material:whole body is made of carbon steel,thickness:1.20mm Effective in simplification and standardization of cross wiring arrangement
6.5	Cable cutter	Inco/local
6.6	HUB	5 port
6.7	HUB	8 Port
6.8	POE Network Switch	100/100Mbps 4port POE +2uplink 6port POE +2uplink 8port POE +2uplink
6.9	Network Crimping tool	<b>i)</b> Terminates RJ11, RJ12 and RJ45 modular plugs <b>ii)</b> Strips flat and round cable <b>iii)</b> Cuts cable <b>iv)</b> Sturdy construction for long life <b>v)</b> Easy-grip handle
6.10	RJ 45 Cable jointer	
6.11	Charger	5volt, 9 Volt, 12 volt
6.12	Ethernet Punching tool for IO,S Unite	

6.13	Patch Cord	Rj-45 cat-6 with cover jacket
6.14	Un managed Switch Gigabit	Long Transmission Distance:250M Power Capacity:120W Max.Output Power Per Port:15.4W Bandwidth Capacity:2Gbps Network Standard:IEEE 802.3 af/at Design:Fanless,  Port: 8, 16, 24
6.15	Cable tester analog	
6.16	Patch panel  Loaded 24 port  (Schindler)	Color: Black  Component Type: Patch Panel  Connection Type:RJ45  Form Factor: Angled, Flat  Height: 3.94 in, 4.65 in  Height (Metric): 100 mm, 118 mm, 44 mm  Number of Ports: 24  Solution for  Access Network: FTTH/FTTB/CATV, Access Network: xDSL, Enterprise Network: Data Center, Enterprise Network: POLS, Enterprise Network: Structured Cabling  Width  1.75 in, 3.5 in  Width (Metric)  44.5 mm, 482.6 mm, 89 mm
6.17	Screw driver set	
6.18	Cable tester digital	Extremely easy to use and understand  Network Cable Tester can judge wrong connection, short circuit and open circuit  Build-in power switch for power saving  RJ45 Network Cable Tester test correspondingly double-twisted cables 1, 2, 3, 4, 5, 6, 7, 8 and Ground

		<p>9 LED lights to indicate wiring connection on both remote and master unit</p> <p>Transmitter and receiver snap together for transport or patch cable testing</p> <p>Transmitter and receiver each have one RJ-45 jack and one BNC jack.</p> <p>Automatic efficient scan for the miss wiring, disorder cable, open and short circuit.</p> <p>Separable transmitter and receiver to test installed cabling or patch cables.</p> <p>Standard cable wiring diagrams are printed on the transmitter unit.</p> <p>Protective power switch for low power consumption.</p> <p>The high-quality soft leather case provides more secure protection.</p>
6.19	Drill Machine	<p>Voltage:20V</p> <p>No-load speed:0-400/0-1500rpm</p> <p>Max torque:45NM</p> <p>Chuck capacity:0.8-10mm</p> <p>Torque settings:15+1</p> <p>Mechanical 2-speed gear</p> <p>Include:</p> <p>1 Pcs Cr-V 65mm bit</p> <p>2 Pcs 1.5Ah battery pack(FBLI20015)</p> <p>1 Pcs charger(FCLI2001)</p> <p>Charge volts: 220-240V~50/60Hz</p> <p>Integrated work light</p> <p>LED battery power indicator</p>
6.20	I/O,S with face plate and Box for IO,S	<p>Color: Black, Blue, Red, White</p> <p>Connection Type:IDC</p> <p>Performance Compliance: Hardware, Permanent Link</p> <p>Solution for: Access Network: FTTH/FTTB/CATV, Enterprise Network: Data Center, Enterprise Network: POLS, Enterprise Network: Structured Cabling.</p> <p>Twisted Wire Category: Cat. 5E, Cat. 6</p>

<b>LOT No. 07</b>		
<b>SNo.</b>	<b>Items</b>	<b>Specification</b>
7.1	SFP (10G ) Single Mode SFP + module	All SFP should be original SFP + and must be OEM SFP
7.2	10 G Base – T SFP+ Copper Transceiver Module	10GBASE-T module offers connectivity options at the following data rates: 100M/1G/10Gbps. It has the SFP+ form factor and an RJ-45 interface so that CAT5e/CAT6A/CAT7 cables can be used to connect to end points with embedded 10GBASE-T ports. They are suitable for distances up to 30 meters and offers a cost-effective way to connect within racks and across adjacent racks.

<b>LOT No. 08</b>		
<b>SNo.</b>	<b>Item</b>	<b>Specifications</b>
8.1	Fiber Optic Cable (OFC)	Single Mode Fiber (SMF), ITU-T G.652.D / G.657.A1, 9/125 $\mu$ m, core count 12/24/48/96, armored (outdoor) / unarmored (indoor), HDPE/LSZH jacket
8.2	Attenuation	$\leq 0.35$ dB/km @ 1310 nm, $\leq 0.22$ dB/km @ 1550 nm
8.3	Cable Construction	Loose tube design, to moisture, suitable for duct/aerial installation
8.4	Fiber Accessories	ODF (12/24/48 port), LIU, patch panels, splice closures, cable managers
8.5	Patch Cords & Pigtails	Single mode, SC/LC connectors, factory terminated, low insertion loss
8.6	Installation (Outdoor)	Underground via HDPE ducts / aerial installation with proper supports
8.7	Installation (Indoor)	PVC casing/trunking, proper routing, labeling at both ends
8.8	Splicing	Fusion splicing with loss $\leq 0.1$ dB per splice, heat shrink sleeves

8.9	Termination	Proper termination in ODF/LIU, SC/LC connectors (UPC/APC as required)
8.10	Testing	OTDR testing, power meter testing, link loss measurement
8.11	Commissioning	End-to-end testing, connectivity verification, integration with existing network
8.12	Documentation	As-built drawings, route map, core allocation chart, OTDR reports
8.13	Standards Compliance	ITU-T, IEC 60794, TIA/EIA-568, ISO/IEC 11801
8.14	Warranty	Minimum 1-year comprehensive warranty with support
8.15	Training	Basic training for IT staff on operation & maintenance
8.16	Scope of Work	Supply, installation, splicing, termination, testing, and commissioning complete solution
8.17	Optional Features	Redundant fiber path , monitoring system

**SERIAL NO. 09: Low Tech General Equipment/Bio Medical Equipment**  
**(SAMPLE FORMAT FOR QUOTING PRICE)**

1	2	3	4	5
<b>SNO. of the Item according to BSDS</b>	<b>Item Name</b>	<b>Made/Model (Mandatory)</b>	<b>Unit price per each item Without all Taxes</b>	<b>Unit price per each item With all Taxes</b>

	<b>SERIAL NO. 09: Low Tech General Equipment/Bio Medical Equipment</b>		<b>FIRM QUOTED SPECIFICATIONS</b>
<b>1</b>		<b>Radiant Warmers</b>	
	1	Model:	
	2	Make:	
	3	Country of Origin:	
	4	Country of Manufacturer:	
	5	Post Warranty Series & Maintenance Percentage	
	6	<b>TECHNICAL SPECIFICATIONS</b>	
	7	Control panel with smart meters	
	8	Hands-free alarm silence feature	
	9	Temperature control system Pre-warm, manual, and servo (skin-controlled)	
	10	360 degree rotating bed with trendelenburg	
	11	Integrated NIBP and pulse oximetry	
	12	Integrated phototherapy and lighting	
	13	Wireless scale for measurement	

	14	Inbuilt suction	
	15	Digital display for set temperature and baby (skin) temperature	
	16	Backup battery facility	
	17	Resuscitation unit with oxygen-air mixer, vacuum, and t-piece resuscitator	
	18	Mattress features: Adjustable tilt (about $\pm 10-15^\circ$ ) with uniform heat distribution	
	19	Sensors: Skin temperature probe for servo control	
<b>2</b>	<p><b>Baby Warmer</b></p> <ul style="list-style-type: none"> <li>- Temperature Control: Precise temperature control, typically ranging from 34°C to 41.5°C, with some models offering cooling capabilities.</li> <li>- Heating Method: Radiant heating, conductive heating, or a combination of both.</li> <li>- Safety Features: Overheating protection, alarms for high and low temperatures, and air detection.</li> <li>- Portability: Some models are designed for transport, with compact and lightweight designs.</li> <li>- Power Supply: 110-230 VAC, 50/60 Hz, with some models featuring battery-powered options.</li> </ul>		
<b>3</b>	<p><b>Resuscitator Trolley with warmer</b></p> <ul style="list-style-type: none"> <li>- Temperature Control: Precise temperature control, typically ranging from 30°C to 38°C, with some models offering cooling capabilities.</li> <li>- Heating Method: Radiant heating, conductive heating, or a combination of both.</li> <li>- Safety Features: Overheating protection, alarms for high and low temperatures, and air detection.</li> <li>- Portability: Some models are designed for transport, with compact and lightweight designs.</li> <li>- Power Supply: 110-230 VAC, 50/60 Hz, with some models featuring battery-powered options.</li> </ul>		
<b>4</b>	<p><b>Bi-Pap Machine</b> - Modes: CPAP, S, ST, T, iVAPS, PAC, and Auto Bi-level</p> <ul style="list-style-type: none"> <li>- Pressure Range: 2-40 cm H<sub>2</sub>O, with some models offering up to 30 cm H<sub>2</sub>O</li> <li>- Humidification: Integrated or external humidifier options available</li> <li>- Weight: Approximately 1.3-2.5 kg</li> <li>- Dimensions: Varying sizes, with some models measuring around 15-25 cm in length, 10-20 cm in width, and 5-10 cm in height</li> <li>- Power Requirement: 100-240V AC, 50/60Hz, with some models featuring battery backup</li> <li>- Data Connectivity: SD card, USB, wireless connectivity, or cloud-based monitoring</li> </ul>		

<b>5</b>	<p><b>BMI Machine (Digital Height &amp; Weight Scale)</b> - Height Measurement Range: typically, 50-210cm or 80-200cm</p> <ul style="list-style-type: none"> <li>- Weight Measurement Range: usually 2-300kg or 1-200kg</li> <li>- Accuracy: <math>\pm 0.1</math>cm for height and <math>\pm 0.1</math>kg for weight</li> <li>- Display: LED or LCD screens with optional voice broadcast and printing capabilities</li> <li>- Power Supply: AC100V-240V, 50Hz</li> </ul>						
<b>6</b>	<p><b>BP SET Tabletop:</b> Mercury Type having quality cuff and bulb, Analog meter with clear reading Up-to date calibrated</p>						
<b>7</b>	<p><b>BP SET Mobile:</b> Mercury Type having quality cuff and bulb, Analog meter with clear reading Upto date calibrated</p>						
<b>8</b>	<p><b>Baby weight scale</b> digital Display intensity adjustable for longer battery backup, Retains the last weight in memory 'HOLD' function for locking the display of weight Baby bowl made up of ABS (Supplied with scale) On body rear side display. Rechargeable 6V, 4AH SMF battery with battery Operating Temperature: 0°C to 50°C Power Supply: AC 230V 10%, - 20%, 50 Hz <math>\pm</math> 2% Overall Dimensions: 555 mm (L) x 385 mm (W) x 240 mm (H) (with bowl)</p>						
<b>9</b>	<p><b>Blood Bags Sealer:</b> Should be a heavy-duty tube-sealer. Should be for bench-top use. The sealing time should not be more than 2 seconds. Sealing triggering should be automatic Should also have extended portable hand unit Should have indication lamps. No warm-up time should be required. Should ensure easy separation of tube segments after the sealing. Should be simple to handle to be operational on 220 to 240 V at 50 Hz.</p>						
<b>10</b>	<p><b>BLOOD BAG SHAKER</b> - Temperature Range: 37°C <math>\pm</math> 0.5°C, with some models offering adjustable temperature settings</p> <ul style="list-style-type: none"> <li>- Agitation Speed: 60-80 rpm, with gentle mixing to prevent blood cell damage</li> <li>- Capacity: 4-12 blood bags (200-400ml each), depending on the model</li> <li>- Power Supply: AC 100-240V, with battery backup options available</li> <li>- Display: Digital LCD/LED screen for easy monitoring</li> <li>- Safety Features: Automatic clamp, alarm indications, and over-temperature protection</li> </ul>						
<b>11</b>	<p><b>CPAP Machine</b></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><b>1.1</b></td> <td><b>CPAP Machine</b></td> </tr> <tr> <td style="text-align: center;">1</td> <td>Model:</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Make:</td> </tr> </table>	<b>1.1</b>	<b>CPAP Machine</b>	1	Model:	2	Make:
<b>1.1</b>	<b>CPAP Machine</b>						
1	Model:						
2	Make:						

3	Country of Origin:
4	Country of Manufacturer:
5	Post Warranty Series & Maintenance Percentage
6	<b>TECHNICAL SPECIFICATIONS</b>
7	Device should able to deliver CPAP of 1 to 10 cmH <sub>2</sub> O increments of 1cm,
8	using a under water bubble system.
9	2) The device should have a in-built air oxygen blender to deliver FiO <sub>2</sub> 21%
10	to 100% (+/- 2 %) with an adjustable flow in the range of 0
11	-15 L/min (+/-
12	0.5 L/min);
13	3) Should have a heated wire servo controlled humidifier with display temp.
14	near patient end of the circuit; to be supplied with 2 reusable infant
15	water chamber;
16	4) Should be supplied with 2 reusable heated wire silicone tubing circuit for
17	infant/Newborn;
18	5) Should be able to deliver CPAP using available patient interfaces nasal
19	prongs/nasopharyngeal prongs;
20	6) For devices based on underwater bubble systems the water chamber
21	should be reusable; to be supplied with 2 reusable water chamber;
22	7) Should be provided pressure release valve at 15cmH <sub>2</sub> O to 17cmH <sub>2</sub> O;

12	<p><b>CTG Machine</b> - Fetal Heart Rate (FHR) Monitoring: 50-210 BPM or 20-300 BPM range, with <math>\pm 1</math> BPM accuracy</p> <ul style="list-style-type: none"> <li>- Uterine Contraction (UC) Monitoring: 0-100 mmHg range, with <math>\pm 10\%</math> accuracy</li> <li>- Channels: 1-4 channels for FHR and UC monitoring</li> <li>- Display: LCD/LED display with real-time waveform and numerical data</li> <li>- Recording: Thermal or digital printing options</li> <li>- Safety Features: Alarms for abnormal FHR, UC, and equipment malfunctions</li> </ul>			
13	<p><b>Digital Hygrometer:</b>  Measurement ranges: 0 to 100% r.h, -30 to 100°C Resolution: 0.01% r.h. 0.01°C Accuracy: <math>\pm 2.0\%</math> r.h. at 25°C <math>\pm 0.5^\circ\text{C}</math> at 25°C Display: dual LCD with 4.5 positions Battery: 9V battery (PP3) Response time % r.h: about 10 sec. (90 % @ 25° C air temp.) Dimensions: 225 x 45 x 34mm Weight: 200g</p>			
14	<p><b>ETT Patient Cable wire</b> - Compatibility: Designed for specific patient monitors</p> <ul style="list-style-type: none"> <li>- Connector Type: Typically, 3.5mm or 6-pin connector</li> <li>- Cable Length: 2-10 meters (6-30 feet)</li> <li>- Material: Durable and flexible PVC or TPU</li> <li>- Shielding: Noise reduction and electromagnetic interference (EMI) shielding</li> <li>- Sterilization: Compatible with common sterilization methods (ETO, gamma radiation)</li> </ul>			
15	<p><b>Explosive Detector Device</b> - Detection Technology: Ion Mobility Spectrometry (IMS), X-Ray, or Chemical Sensors</p> <ul style="list-style-type: none"> <li>- Sensitivity: Detects trace amounts (nanograms) of explosives</li> <li>- Detection Range: Varies by model, typically detects explosives in seconds</li> <li>- Alarm: Audible, visual, or vibration alerts</li> <li>- Power: Battery-operated or rechargeable</li> </ul>			
16	<p><b>Glucometer</b> - Measurement Range: 20-600 mg/dL (1.1-33.3 mmol/L)</p> <ul style="list-style-type: none"> <li>- Accuracy: <math>\pm 10\text{-}15\%</math> or better</li> <li>- Sample Size: 0.5-1.5 <math>\mu\text{L}</math> (varies by model)</li> <li>- Test Time: 5-15 seconds</li> <li>- Memory: Stores 100-500 test results</li> <li>- Power: Battery-operated (usually 1-2 CR2032 batteries)</li> </ul>			
17	<p><b>Hard Pack</b></p>			
18	<p><b>Infusion Pump</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;"><b>Alarms:</b></td> </tr> <tr> <td style="padding: 5px;">(visual and acoustic): with automatic pump stop function, air alarm, door open stand by alarm, invalid rate, low battery.</td> </tr> <tr> <td style="padding: 5px;"><b>delivery rate:</b></td> </tr> </table>	<b>Alarms:</b>	(visual and acoustic): with automatic pump stop function, air alarm, door open stand by alarm, invalid rate, low battery.	<b>delivery rate:</b>
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<b>delivery rate:</b>				

	<p>Lowest 0.1ml / hour</p> <p><b>Control:</b></p> <p>On/off, start/stop infusion, flow rate, volume</p> <p><b>Display</b></p> <p><b>Automatic delivery rate calculation in ml/hr</b></p> <p><b>Rechargeable</b></p> <p><b>Cable lengths more than 2meter</b></p> <p><b>Data lock</b></p> <p><b>User manual in English</b></p> <p><b>Important spare parts and accessories</b></p>	
<b>19</b>	<p><b>Disposable Single Use infusion pump</b> - Flow Rate: 0.5-10 mL/h (varies by model)</p> <ul style="list-style-type: none"> <li>- Volume Range: 50-500 mL (varies by model)</li> <li>- Accuracy: <math>\pm 10-15\%</math> or better</li> <li>- Power: Non-rechargeable battery or elastomeric pressure</li> <li>- Alarms: Occlusion, low flow, or end-of-infusion alerts</li> </ul>	
<b>20</b>	<p><b>Lead Goggles</b> - Lead Equivalent: 0.1-0.5 mm Pb (varies by model)</p> <ul style="list-style-type: none"> <li>- Protection: Shields eyes from X-ray and gamma radiation</li> <li>- Design: Comfortable fit, adjustable straps, and lightweight</li> <li>- Material: Lead-impregnated plastic or lead glass</li> </ul>	
<b>21</b>	<p><b>Lead Gloves</b> - Lead Equivalent: 0.25-0.5 mm Pb (varies by model)</p> <ul style="list-style-type: none"> <li>- Protection: Shields hands from X-ray and gamma radiation</li> <li>- Material: Lead-impregnated rubber or synthetic materials</li> <li>- Design: Ergonomic fit, adjustable cuffs, and textured grip</li> </ul>	
<b>22</b>	<p><b>Lead Apron</b> - Lead Equivalent: 0.25-0.5 mm Pb (varies by model)</p> <ul style="list-style-type: none"> <li>- Protection: Shields torso and reproductive organs from X-ray and gamma radiation</li> <li>- Material: Lead-impregnated vinyl or synthetic materials</li> <li>- Design: Wrap-around or front-only, with adjustable straps or Velcro</li> </ul>	
<b>23</b>	<p><b>Magnifying Loupe</b> - Magnification: 2x-10x (varies by model)</p> <ul style="list-style-type: none"> <li>- Lens Type: Aspheric or achromatic lenses for clarity</li> <li>- Field of View: 1-10 cm (varies by model)</li> <li>- Design: Headband, eyeglass-mounted, or handheld</li> </ul>	

24	<p><b>HRP High Resolution Prismatic Binocular Loupe Magnification 6.0 x/340mm with I-View Loupe mount</b>  field of view 55mm, depth of focus 40mm, light, weight, multy coated Achromatic, Optics Prismatic for highest magnification, High -Resolution image, bright images from edge to edge. Water resistant, independent adjustment of left and right optics for perfect PD adjustment. Loupe Optics with frame.</p>
25	<p>Loupes 4X - Magnification: 4x</p> <ul style="list-style-type: none"> <li>- Working Distance: 300-600mm adjustable (varies by model)</li> <li>- Field of View: 80-85mm (varies by model)</li> <li>- Depth of Field: 80-110mm (varies by model)</li> <li>- Weight: 44-58g (varies by model and frame)</li> <li>- Lens Material: Optical glass or A+ grade optical glass</li> <li>- Frame: Titanium, metal, or adjustable frames available</li> <li>- IPD Range: 55-72mm (varies by model)</li> </ul>
26	<p>Surgical Loupes 2.5X with working distance of 40 to 45cm - Magnification: 2.5x</p> <ul style="list-style-type: none"> <li>- Working Distance: 40-45cm (or 420mm)</li> <li>- Field of View: 75-120mm</li> <li>- Depth of Field: 70-140mm</li> <li>- Frame: Titanium or metal frame available</li> <li>- Weight: Approximately 42-90g</li> <li>- Resolution: HD or 12/20 resolution</li> </ul>
27	<p>MINI Refrigerator (local made) - Capacity: 2-14 cubic feet, ideal for singles, students, or small families</p> <ul style="list-style-type: none"> <li>- Dimensions: Varies, but typically around 44cm width, 51cm depth, and 63.5cm height</li> <li>- Energy Efficiency: 4-star energy rating, with some models offering up to 35% energy savings</li> <li>- Cooling Technology: Direct Cool or Inverter technology</li> <li>- Shelves: Wire or glass shelves, adjustable for customization</li> <li>- Features: LED lighting, child lock, manual defrost, and compact design</li> </ul>
28	<p><b>Nebulizer</b></p> <ul style="list-style-type: none"> <li>• Ultrasonic type with floor stand</li> <li>• Nebulization from 1-5 micron particles.</li> <li>• Easy cleaning &amp; sterilization of the circuit</li> <li>• The timer ranging 1-15 minutes is equipped for convenience.</li> <li>• Safety alarm</li> <li>• When water level of the reservoir decreases, nebulization stops and red lamp lights for safety.</li> <li>• Ultrasonic frequency : 1.7 MHz + 10%</li> <li>• Nebulizing timer: 1-15ml/min. + 10%</li> </ul> <p>Standard accessories including mask for infant and peads  Required:  3 years with parts and service warranty</p>

	Service Manual Must be provided along with.						
<b>29</b>	<p><b>Nebulization machine (wall mounted) rechargeable</b></p> <table border="1"> <tr> <td>Nebulization rate. From 0.2ml/min to 0.5ml/min</td> </tr> <tr> <td>Medication capacity. Ranging from 5ml to 12ml</td> </tr> <tr> <td>Operating noise level. Less than 45db- 65db</td> </tr> <tr> <td>Power requirements- usually 220-240V AC 50Hz or 12-15V DC</td> </tr> <tr> <td>Operating condition - temp 10-40 degree Centigrade, 30-850 relative humidity</td> </tr> <tr> <td>Weight 250-500gm</td> </tr> </table>	Nebulization rate. From 0.2ml/min to 0.5ml/min	Medication capacity. Ranging from 5ml to 12ml	Operating noise level. Less than 45db- 65db	Power requirements- usually 220-240V AC 50Hz or 12-15V DC	Operating condition - temp 10-40 degree Centigrade, 30-850 relative humidity	Weight 250-500gm
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<b>30</b>	<p><b>Ophthalmoscope</b>  Rechargeable handle rheostat with on-off switch for variable power. Safety switch to prevent accidental draining of batteries with nickel cadmium rechargeable batteries.  5 apertures –25 to 40 lense illuminated lense dial otoscope with reversible spatula 4 different size 2.5-5 cm.  2.5 V wall transformer for ophthalmoscope handle and heard 220-250 volts 2.5 desk charger.</p>						
<b>31</b>	<p>Microwave Oven - Power Output: Higher watts = faster cooking  - Size: Compact or large capacity?  - Functions: Basic heating, grilling, convection.</p>						
<b>32</b>	<p>Otoscope - Magnification: Typically, 3-5x for clear views  - Light Source: LED or halogen for bright illumination  - Speculum: Disposable or reusable tips</p>						
<b>33</b>	<p><b>Pulse Oximeter</b> Digital pulse oximeter for accurate assessment of blood oxygen saturation and pulse rate. Two-button operation 60Hrs or more data storage Large LED display Oxygen saturation range (%SpO2) 0% to 100%Pulse rate range 18 to 300 pulses per minute Numeric displays 3-digit 7-segment LEDs, redLow battery LED, yellow Neonates 70-100% ±3 digits Motion: Adults, pediatrics 70-100% ±3 digits NiMH rechargeable to battery pack (45 hours typical operation) AC power (charging stand)</p>						
<b>34</b>	<p><b>Pulse Oximeter</b> with pediatric probe - Oxygen Saturation (SpO2) Measurement Range: 70%-100% (some models range from 35%-100%)  - Pulse Rate Measurement Range: 30-240 BPM (some models range from 25-300 BPM)  - Accuracy: ±2% for SpO2 and ±2 BPM for pulse rate  - Probe Type: Pediatric finger probe, suitable for children aged 1-12 years (some models for newborns to 2/3 years)  - Display: OLED or LED display with adjustable brightness</p>						

	<ul style="list-style-type: none"> <li>- Power: Battery-operated (usually 2 AAA batteries) or rechargeable</li> <li>- Additional Features: Low battery indicator, automatic power-off, adjustable alarm limits</li> </ul>
<b>35</b>	<p><b>REFRIGRATOR (Local)</b></p> <ol style="list-style-type: none"> <li>1. Volt/220</li> <li>2. Invertor technology</li> <li>3. Double door</li> <li>4. Lowest electricity consumption</li> <li>5. Frost free</li> <li>6. One year warranty for parts and 3-year warrant for compressor</li> <li>7. With stabilizer and all accessories</li> <li>8. Size 16 cubic feet</li> </ol>
<b>36</b>	<p><b>Radiation Detection Device for Radiology Deptt:</b></p> <ul style="list-style-type: none"> <li>- Detection Type: Gamma, X-Ray, Beta, or Multi-Radiation detection</li> <li>- Radiation Type: Ionizing radiation (X-ray, Gamma, Beta)</li> <li>- Measurement Range: 0.01 <math>\mu</math>Sv/h to 100 mSv/h (varies by model)</li> <li>- Accuracy: Typically <math>\pm 10\%</math> to <math>\pm 15\%</math></li> <li>- Detector: Geiger-Muller (GM) tube, Scintillator, or Semiconductor detector</li> <li>- Response Time: Fast response (usually &lt;1 second)</li> <li>- Display: LCD or OLED display with units (<math>\mu</math>Sv/h, mR/h, etc.)</li> <li>- Alarms: Audible and visual alarms for preset radiation levels</li> <li>- Power: Battery-operated (usually AA or rechargeable)</li> </ul>
<b>37</b>	<p><b>Stabilizer</b></p> <ul style="list-style-type: none"> <li>- Output Voltage: 220V <math>\pm 1\%</math> or 230V <math>\pm 1\%</math></li> <li>- Technology: Servo-controlled or Relay-based</li> <li>- Protection: Overload, short-circuit, and surge protection</li> <li>- Display: LED or digital display for input/output voltage</li> <li>- Efficiency: Typically, &gt;95%</li> </ul>
<b>38</b>	<p><b>Stabilizer (110V &amp; 220V): 1000w, Servo Motors</b></p> <ul style="list-style-type: none"> <li>- Output Voltage: 220V <math>\pm 1\%</math> or 230V <math>\pm 1\%</math></li> <li>- Technology: Servo-controlled or Relay-based</li> <li>- Protection: Overload, short-circuit, and surge protection</li> <li>- Display: LED or digital display for input/output voltage</li> <li>- Efficiency: Typically, &gt;95%</li> </ul>
<b>39</b>	<p><b>Stabilizer (110V &amp; 220V): 2000w, Servo Motors</b></p> <ul style="list-style-type: none"> <li>- Output Voltage: 220V <math>\pm 1\%</math> or 230V <math>\pm 1\%</math></li> <li>- Technology: Servo-controlled or Relay-based</li> <li>- Protection: Overload, short-circuit, and surge protection</li> <li>- Display: LED or digital display for input/output voltage</li> <li>- Efficiency: Typically, &gt;95%</li> </ul>

40	<p>Stabilizer (110V &amp; 220V): 3000w) Servo Motors - Output Voltage: 220V <math>\pm</math>1% or 230V <math>\pm</math>1%</p> <ul style="list-style-type: none"> <li>- Technology: Servo-controlled or Relay-based</li> <li>- Protection: Overload, short-circuit, and surge protection</li> <li>- Display: LED or digital display for input/output voltage</li> <li>- Efficiency: Typically, &gt;95%</li> </ul>
41	<p><b>Stabilizer</b> (110V &amp; 220V): 10000w, Servo Motors - Output Voltage: 220V <math>\pm</math>1% or 230V <math>\pm</math>1%</p> <ul style="list-style-type: none"> <li>- Technology: Servo-controlled or Relay-based</li> <li>- Protection: Overload, short-circuit, and surge protection</li> <li>- Display: LED or digital display for input/output voltage</li> <li>- Efficiency: Typically, &gt;95%</li> </ul>
42	<p><b>Stabilizer</b> (110V &amp; 220V): 15000w Servo Motors - Output Voltage: 220V <math>\pm</math>1% or 230V <math>\pm</math>1%</p> <ul style="list-style-type: none"> <li>- Technology: Servo-controlled or Relay-based</li> <li>- Protection: Overload, short-circuit, and surge protection</li> <li>- Display: LED or digital display for input/output voltage</li> <li>- Efficiency: Typically, &gt;95%</li> </ul>
43	<p><b>Stabilizer</b> (110V &amp; 220V): 20000w Servo Motors - Output Voltage: 220V <math>\pm</math>1% or 230V <math>\pm</math>1%</p> <ul style="list-style-type: none"> <li>- Technology: Servo-controlled or Relay-based</li> <li>- Protection: Overload, short-circuit, and surge protection</li> <li>- Display: LED or digital display for input/output voltage</li> <li>- Efficiency: Typically, &gt;95%</li> </ul>
44	<p>SPO2 Sensor for Anesthesia, - Measurement Range: 70-100% SpO2</p> <ul style="list-style-type: none"> <li>- Accuracy: <math>\pm</math>2-3% (varies by model)</li> <li>- Response Time: 2-10 seconds</li> <li>- Probe Types: Finger, earlobe, or forehead probes</li> </ul> <p>ICU, CCU, Labouroom, Nursery</p>
45	<p>Spray Pump - Spray Pattern: Fine mist, stream, or adjustable</p> <ul style="list-style-type: none"> <li>- Capacity: 10-1000 mL (varies by model)</li> <li>- Material: Plastic, glass, or metal</li> <li>- Actuation: Manual, trigger, or pump-top</li> </ul>
46	<p><b>Syringe Pump</b> -</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Pediatric syringe pumps require high-precision delivery for small volumes, featuring micro-flow rates (down to 0.01-0.1 mL/h), compatibility with 5-50 mL syringes, and strict safety alarms for occlusion and air detection.</p> </div> <ul style="list-style-type: none"> <li>· <b>Flow Rate Range:</b> Typically, 0.1 to 100+ mL/h, with low-rate capability crucial for infants (e.g., 0.01 mL/h to 150 mL/h).</li> </ul>



	<ul style="list-style-type: none"> <li>· <b>Accuracy:</b> High precision, often or better, meeting standards like IEC 60601-2-24 for small volumes.</li> <li>· <b>Syringe Size Compatibility:</b> Support for a wide range of syringe sizes, including 5mL, 10mL, 20mL, 30mL, and 50mL.</li> <li>· <b>Automatic Syringe Detection:</b> Automated recognition of syringe brand/size to minimize human error.</li> <li>· <b>Keypad/Set Lock:</b> Security features such as key locks or pin codes to prevent accidental setting changes by children or caregivers.</li> <li>· <b>Alarms:</b> Comprehensive visual and audio alarms for occlusion, low battery, empty syringe, and dislodged syringes.</li> <li>· <b>Bolus Function:</b> Programmable or manual bolus, often with automatic calculation.</li> <li>· <b>Battery Power:</b> Internal, rechargeable battery enabling at least 4-6 hours of continuous use for portability.</li> </ul> <p><b>Essential Features for Pediatric Use</b></p> <ul style="list-style-type: none"> <li>· <b>Small Volume Precision:</b> Capable of precise infusions for neonates where micro-dosing is vital.</li> <li>· <b>Drug Library:</b> Built-in drug libraries (40+ commonly used drugs) with customizable dose limits.</li> <li>· <b>Portable Design:</b> Compact and lightweight for use with walking or young patients.</li> <li>· <b>Safety Features:</b> Includes flow clamps (prevent free flow) and air-in-line detectors.</li> <li>· <b>User Interface:</b> Intuitive display (e.g., 3.5-inch LCD) for quick viewing of drug volume, rate, and time, particularly in ICUs and ORs.</li> </ul>	
47	<p>Suction Machine Low Duty - Suction Pressure: 0-300 mmHg (varies by model)</p> <ul style="list-style-type: none"> <li>- Flow Rate: 10-30 L/min (varies by model)</li> <li>- Power: AC/DC or battery-operated</li> <li>- Collection Bottle: Typically, 1-2 liters</li> </ul>	

<b>48</b>	<p><b>Suction Machines Heavy Duty</b></p> <table border="1" data-bbox="298 258 1029 789"> <tr> <td data-bbox="298 258 1029 321">Portable and/or trolley-mounted design</td> </tr> <tr> <td data-bbox="298 321 1029 384">Vacuum range: 0 to <math>\geq 600</math> mmHg adjustable</td> </tr> <tr> <td data-bbox="298 384 1029 447">Flow rate: <math>\geq 20</math> L/min</td> </tr> <tr> <td data-bbox="298 447 1029 510">Low noise operation (&lt;60 dB preferred)</td> </tr> <tr> <td data-bbox="298 510 1029 573">Collection jar capacity: <math>\geq 1-2</math> liters (autoclavable)</td> </tr> <tr> <td data-bbox="298 573 1029 636">Overflow protection system</td> </tr> <tr> <td data-bbox="298 636 1029 699">Oil-free, maintenance-free pump</td> </tr> <tr> <td data-bbox="298 699 1029 789">Power supply: 220–240V AC with optional battery backup</td> </tr> </table>	Portable and/or trolley-mounted design	Vacuum range: 0 to $\geq 600$ mmHg adjustable	Flow rate: $\geq 20$ L/min	Low noise operation (<60 dB preferred)	Collection jar capacity: $\geq 1-2$ liters (autoclavable)	Overflow protection system	Oil-free, maintenance-free pump	Power supply: 220–240V AC with optional battery backup
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Overflow protection system									
Oil-free, maintenance-free pump									
Power supply: 220–240V AC with optional battery backup									
<b>49</b>	<p>Stethoscope - Type: Acoustic, electronic, or digital</p> <ul style="list-style-type: none"> <li>- Frequency Range: 20-2000 Hz (varies by model)</li> <li>- Earpieces: Adjustable, soft-sealing, or custom-fit</li> <li>- Chest Piece: Diaphragm, bell, or dual-sided</li> </ul> <p>Good quality tubing and deiform.</p>								
<b>50</b>	<p>Thermometer Infrared &amp; Laser (Thermal Gun) - Measurement Range: Typically <math>-50^{\circ}\text{C}</math> to <math>300^{\circ}\text{C}</math> (<math>-58^{\circ}\text{F}</math> to <math>572^{\circ}\text{F}</math>)</p> <ul style="list-style-type: none"> <li>- Accuracy: <math>\pm 0.5^{\circ}\text{C}</math> to <math>\pm 2^{\circ}\text{C}</math> (varies by model)</li> <li>- Distance-to-Spot Ratio: Varies (e.g., 10:1, 20:1)</li> <li>- Response Time: 0.5-1 second</li> </ul>								
<b>51</b>	<p>Thyroid Guard - Lead Equivalent: 0.25-0.5 mm Pb (varies by model)</p> <ul style="list-style-type: none"> <li>- Protection: Shields thyroid gland from X-ray and gamma radiation</li> <li>- Material: Lead-impregnated vinyl or synthetic materials</li> <li>- Design: Wrap-around or front-only, with adjustable straps or Velcro</li> </ul>								
<b>52</b>	<p>Gonadal Shield - Lead Equivalent: 0.25-1 mm Pb (varies by model)</p> <ul style="list-style-type: none"> <li>- Protection: Shields gonads from X-ray and gamma radiation</li> <li>- Material: Lead-impregnated vinyl or synthetic materials</li> <li>- Design: Wrap-around, front-only, or custom-fit</li> </ul>								
<b>53</b>	<p>Tourniquet (Pneumatic Tourniquet) - Pressure Range: 0-300 mmHg (varies by model)</p> <ul style="list-style-type: none"> <li>- Cuff Size: Various sizes for different limbs</li> <li>- Power: Pneumatic, often with manual backup</li> <li>- Safety Features: Pressure alarms, auto-shutoff</li> </ul>								

54	<p><b>Weight scale for adult: (10g to 150Kg)</b>  Capacity: 150KG  Readability: 100g  Pan Size: 300 mm Di  Toughened glass top  Waterproof, can be used in bathroom. Battery operated. Battery power saving by switching off Display while no weight on the scale. Retractable metal rod for height measurement. Rugged construction suitable for school, gym, sports. Stainless Steel Pan. LED Display. /Large LCD display. Battery backup. Storage of weights in memory upto 100 weights. Rs232 interface for computer &amp; printer. Multiple weighing units Gram, Kilo gram, pound</p>
55	<p><b>Weight scale Pead's Digital</b> - Accuracy: <math>\pm 0.1-0.5</math> kg (varies by model)  - Weight Range: Typically, 0-20 kg or 0-50 kg  - Units: kg, lb, or both  - Features: Tare function, hold function, auto-off</p>
56	<p><b>X-Ray Viewing Box:</b>  Adopt LED light source with life of 100,000 hours Without the effect of temperature difference as CCFL, the viewer can be lighted as soon turned on. With high brightness of more than 4000lux. exclusive for viewing detail image freely. Light source, layout in equal spaced points, which is more uniform and the uniformity of luminance is above 90%. Maximum brightness can reach up to 5000cd/m<sup>2</sup> which is suitable for different density medical films. Individual function for each bank. The light frequency is above 50KHz, effectively relieves the fatigue of vision. Makes use of A-Cast viewing screen which make the light brighter and softer, the screen can be used for long time and not turn yellow and deform. Adopts advance clamping film setting which is suitable for different thickness film. Avoids the drawbacks of rolling film setting as film easily fall down and hard to lock. The wide power design which fit for the power of different areas, the viewers work well within AC100-250V. Ultra-thin design and the power set inside the viewer, thickness is approx. 4.5cm, available for desk and wall mounting, effective use of space.</p>
57	<p><b>Delivery Table with all gadgets</b> - Table Type: Obstetric delivery table with stirrups and adjustable height  - Gadgets:  - Fetal monitor  - Cardiotocography (CTG) machine  - Vacuum extractor  - Episiotomy scissors  - Newborn resuscitation equipment  - Suction apparatus  - Infant warmer or radiant heater  - Other Essentials:  - Delivery instrument tray  - Sterile gloves and drapes  - Suturing materials  - Oxygen supply</p>

58	<p>Vacuum Cups- Metal Cups: Traditional, reusable, and sterilizable (e.g., Bird cups)</p> <ul style="list-style-type: none"> <li>- Silicon Cups: Soft, flexible, and disposable (e.g., Kiwi cups)</li> <li>- Silastic Cups: Flexible, disposable, and gentle on fetal scalp - Cup Size: Various diameters (40-70 mm)</li> <li>- Vacuum Pressure: Typically, up to 600-800 mmHg</li> <li>- Handle and Grip: Ergonomic design for traction</li> </ul>																	
59	<p>Vacuum Pipe with connector - Material: Typically, PVC or silicone tubing</p> <ul style="list-style-type: none"> <li>- Connector Type: Standard fittings (e.g., 22mm, 30mm) for vacuum devices</li> <li>- Length and Diameter: Varies (e.g., 1-3 meters, 6-10mm ID)</li> <li>- Sterilization: Autoclavable or disposable</li> </ul>																	
60	<p>Vacuum Pump - Suction Pressure: Typically, 0-760 mmHg</p> <ul style="list-style-type: none"> <li>- Flow Rate: Varies (e.g., 10-100 L/min)</li> <li>- Collection Bottle: Size and type (e.g., 1-5 liters)</li> </ul>																	
61	<p><b>Vacuum Machine</b></p> <ul style="list-style-type: none"> <li>- Suction Power: Varies (e.g., 10-100 L/min, 0-760 mmHg)</li> <li>- Collection Container: Size and type (e.g., bag, canister)</li> <li>- Filters: HEPA, water, or oil filters</li> </ul>																	
62	<p>Manual Vacuum Aspiration (MVA)</p> <ul style="list-style-type: none"> <li>- Procedure: Manual suction for uterine evacuation</li> <li>- Device: Typically uses a syringe or hand pump</li> <li>- Indications: Miscarriage, abortion, or retained products</li> </ul>																	
63	<p>Light Source intensity: Adjustable brightness</p> <ul style="list-style-type: none"> <li>- Color Temperature: Warm white to cool white (e.g., 3000K-6500K)</li> <li>- Beam Focus: Adjustable for spot or flood lighting</li> </ul>																	
64		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td data-bbox="448 1333 521 1402"></td> <td data-bbox="521 1333 1451 1402"><b>High flow machine</b></td> </tr> <tr> <td data-bbox="448 1402 521 1472">1</td> <td data-bbox="521 1402 1451 1472">Model:</td> </tr> <tr> <td data-bbox="448 1472 521 1541">2</td> <td data-bbox="521 1472 1451 1541">Make:</td> </tr> <tr> <td data-bbox="448 1541 521 1610">3</td> <td data-bbox="521 1541 1451 1610">Country of Origin:</td> </tr> <tr> <td data-bbox="448 1610 521 1680">4</td> <td data-bbox="521 1610 1451 1680">Country of Manufacturer:</td> </tr> <tr> <td data-bbox="448 1680 521 1749">5</td> <td data-bbox="521 1680 1451 1749">Post Warranty Series &amp; Maintenance Percentage</td> </tr> <tr> <td data-bbox="448 1749 521 1801">6</td> <td data-bbox="521 1749 1451 1801"><b>TECHNICAL SPECIFICATIONS</b></td> </tr> <tr> <td data-bbox="448 1801 521 1862">7</td> <td data-bbox="521 1801 1451 1862"><b>3. Flow Performance</b></td> </tr> </table>		<b>High flow machine</b>	1	Model:	2	Make:	3	Country of Origin:	4	Country of Manufacturer:	5	Post Warranty Series & Maintenance Percentage	6	<b>TECHNICAL SPECIFICATIONS</b>	7	<b>3. Flow Performance</b>
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8	Adjustable flow range:
9	Neonatal: 1 – 10 L/min
10	Pediatric: 2 – 25 L/min (or higher depending on system)
11	Advanced systems may support up to 60 L/min ♦
12	PMC
13	Flow accuracy: $\pm 10\%$ or better
14	<b>4. Oxygen Delivery (FiO<sub>2</sub>)</b>
15	Adjustable FiO <sub>2</sub> range:
16	21% – 100%
17	Integrated air/oxygen blender
18	Accuracy: $\pm 3\%$
19	<b>5. Humidification System</b>
20	Integrated heated humidifier
21	Temperature range:
22	31°C – 37°C (adjustable up to ~39°C in advanced units) ♦
23	Hamilton Medical
24	Automatic humidity compensation
25	Heated breathing circuit to prevent condensation
26	<b>6. Nasal Interface (Cannula)</b>
27	Soft, non-occlusive nasal prongs (should not occlude >50% nares) ♦
28	Clinical Guidelines Scot
29	Multiple sizes:
30	Preterm / Neonatal / Infant / Pediatric
31	Biocompatible, hypoallergenic material
32	Secure fixation system (bonnet or adhesive tabs)

33	<b>7. Monitoring &amp; Display</b>
34	Digital display (touch screen preferred)
35	Real-time monitoring of:
36	Flow rate
37	FiO <sub>2</sub>
38	Temperature
39	Optional monitoring:
40	SpO <sub>2</sub>
41	Respiratory rate
42	Pulse rate 
43	Hamilton Medical
44	<b>8. Safety Features</b>
45	High/low flow alarms
46	High/low FiO <sub>2</sub> alarms
47	Temperature alarms
48	Disconnection alarm
49	Pressure relief mechanism
50	Apnea alarm (optional)
51	Automatic system self-check
52	<b>9. Modes / Functionality</b>
53	High Flow Therapy (HFNC)
54	Optional:
55	CPAP compatibility (in some systems) 
56	Eakin Respiratory
57	Nebulization port

	58	<b>10. Power Supply</b>	
	59	Input: 220–240V, 50/60 Hz	
	60	Internal battery backup:	
	61	Minimum 30–120 minutes operation	
	62	<b>11. Accessories</b>	
	63	Heated breathing circuit (single limb)	
	64	Humidification chamber (auto-fill preferred)	
	65	Nasal cannula sets (all sizes)	
	66	Oxygen tubing	
	67	Mounting trolley/stand	
	68	Water reservoir	
<b>65</b>	<p>Safety Cabinet for Covid Lab: - Type: Class II or III Biosafety Cabinet (BSC)</p> <ul style="list-style-type: none"> <li>- HEPA Filters: 99.99% efficiency for 0.3 µm particles</li> <li>- Airflow: Downflow and exhaust airflow for containment</li> <li>- Glove Ports: For safe handling of samples (if Class III)</li> </ul>		
<b>66</b>	<p>Oxygen concentrator 5Ltr. &amp; 10Ltr. - Oxygen Flow: 5L/min or 10L/min</p> <ul style="list-style-type: none"> <li>- Purity: Typically, 90-95% O<sub>2</sub></li> <li>- Power: AC or DC (battery-operated)</li> <li>- Alarm Features: Low oxygen, power failure, etc.</li> </ul>		
<b>67</b>	<p>Smart TV (Diff Size) - 32 inches: Great for smaller spaces, budget-friendly, and perfect for casual viewing. Some top picks include Hisense 32E5QTUK and Samsung Smart Monitor M7.</p> <ul style="list-style-type: none"> <li>- 43-50 inches: Ideal for medium-sized rooms, offering a good balance of price and picture quality.</li> <li>- 55-65 inches: Perfect for larger rooms, with many options like LG C5 OLED, Samsung S95F, and TCL QM6K.</li> <li>- 75-85 inches: For the ultimate viewing experience, with top models like Samsung QN90F and LG G5 OLED.</li> <li>- 98 inches and above: For the truly extravagant, like Samsung's 130-inch Micro RGB.<sup>1 2 3</sup></li> </ul> <p>Key Features to Consider- Resolution: 4K (3840x2160) is standard, but 8K is also available.</p> <ul style="list-style-type: none"> <li>- Display Type: LED, OLED, QLED, and Mini-LED options.</li> <li>- HDR Support: HDR10, Dolby Vision, and HDR10+.</li> </ul>		

	- Gaming Features: HDMI 2.1, 120Hz refresh rate, and low input lag.
<b>68</b>	Manual Bone Mill - Function: Crushes and shapes bone grafts or fragments - Material: Stainless steel or titanium - Operation: Hand-cranked or lever-operated
<b>69</b>	Sonic Aid - Frequency Range: 1-20 MHz for diagnostic imaging - Probe Types: Linear, convex, and transvaginal probes - Imaging Modes: B-mode, M-mode, and Doppler
<b>70</b>	Reusable Items Autoclavable - Material: Stainless steel, silicone, or autoclavable plastics - Temperature: Typically, 121°C (250°F) for 15-30 minutes - Validation: Regular testing for sterility and performance - Maintenance: Regular cleaning and inspection
<b>71</b>	Air Mattress - Material: PVC, PU, or TPU (durable and puncture-resistant) - Size: Twin, full, queen, or custom sizes - Pressure Adjustment: Manual or electric pumps - Comfort Layers: Some have foam or fiberfill tops
<b>72</b>	Air Cutter Diff: sizes - Application: Surgical, dental, or industrial use - Pressure: Operating pressure and flow rate - Nozzle Type: Straight, angled, or curved tips - Sterilization: Autoclavable or disposable nozzles
<b>73</b>	Multimedia Projector - Resolution: SVGA (800x600), XGA (1024x768), Full HD (1920x1080), or 4K - Brightness: Lumens (e.g., 2000-5000) for room lighting - Connectivity: HDMI, VGA, USB, and wireless options
<b>74</b>	Base station with power supply & cable - Power Supply: Typically, AC/DC adapter or PoE (Power over Ethernet) - Connectivity: Ethernet, USB, or wireless connectivity options - Cable: Type and length (e.g., CAT5e, CAT6 for Ethernet) With specific devices (e.g., wireless routers, sensors) - Power Output: Voltage and current ratings - Durability: Build quality and environmental ratings (e.g., IP65 for outdoor use)
<b>75</b>	Walkie Talkie - Range: Varies (e.g., 1-50 km) depending on terrain and model - Channels: Number of channels and frequencies (e.g., UHF, VHF) - Battery Life: Hours or days, depending on usage Some frequencies require a license (e.g., in Pakistan, PTA approval needed) - Durability: Waterproof or rugged designs for tough environments - Additional Features: VOX, hands-free, or GPS

76	<p>Antenna for Base Station - Type: Omnidirectional, directional, or sector antennas</p> <ul style="list-style-type: none"> <li>- Frequency: Match frequency band (e.g., 2G, 3G, 4G, 5G)</li> <li>- Gain: Typically measured in dBi (e.g., 5-15 dBi)</li> </ul> <p>Coverage Pattern: Omnidirectional for wide coverage, directional for focused signal</p> <ul style="list-style-type: none"> <li>- Mounting: Wall, pole, or tower mounting options</li> <li>- Cable and Connector: Coaxial cable and connector type (e.g., N-type)</li> </ul>
77	<p><b>Laryngoscope (Neonatal size with curved blades) -</b></p> <p>Blade Size: Typically, 0 or 1 (neonatal size)</p> <ul style="list-style-type: none"> <li>- Curved Blade: For better visualization of the airway</li> <li>- Light Source: LED or halogen bulb for illumination</li> <li>- Handle: Often battery-powered or fiber-optic</li> </ul> <p>PEDIATRIC / ADULT, curved / straight</p> <p>Size Neonatal 00,01</p>
78	<p>Saturation probe (rubber band type) - Type: Often a pulse oximeter probe</p> <ul style="list-style-type: none"> <li>- Design: Rubber band or wrap-around for easy application</li> <li>- Sensor: Typically LED and photodetector for SpO2 measurement</li> </ul>
79	<p>Portable Endoscope - Portability: Compact, lightweight, and battery-powered</p> <ul style="list-style-type: none"> <li>- Imaging: High-resolution camera and LED light source</li> <li>- Insertion Tube: Flexible or rigid, various diameters and lengths</li> </ul>
80	<p>Portable Ultrasound Probe (Wired / Wireless) Wireless Probes- Frequency Range: 1-12 MHz, depending on the probe type (convex, linear, phased array)</p> <ul style="list-style-type: none"> <li>- Imaging Modes: B-mode, M-mode, Color Doppler, Power Doppler, Pulsed Wave Doppler</li> <li>- Connectivity: Wi-Fi, Bluetooth, compatible with iOS, Android, and Windows devices</li> <li>- Battery Life: Up to 4 hours scanning time, with recharge times varying from 1-2 hours</li> <li>- Weight: Typically around 200-300g (7-10.6 oz)</li> </ul> <p>Wired Probes- Frequency Range: 1-17 MHz, depending on the probe type</p> <ul style="list-style-type: none"> <li>- Imaging Modes: B-mode, M-mode, Color Doppler, Power Doppler, Pulsed Wave Doppler</li> <li>- Connectivity: USB, compatible with PC and laptops</li> <li>- Weight: Typically around 100-300g (3.5-10.6 oz)</li> </ul>
81	<p>Quantum Human Body Scanner - Technology: Advanced Bioelectrical Impedance Analysis (BIA) combined with quantum resonance, frequency scanning, or energy field analysis</p> <ul style="list-style-type: none"> <li>- Measurements: Body fat percentage, visceral fat, basal metabolic rate (BMR), hydration levels, muscle mass, bone mineral content, and cellular health indicators</li> <li>- Analysis: Over 30 body systems and functions, including cardiovascular, gastrointestinal, liver, kidney, and lung function</li> <li>- Connectivity: USB, Wi-Fi, Bluetooth, and cloud storage options</li> <li>- Report Format: Printable PDF reports with explanations and recommendations</li> </ul>

	- Portability: Handheld or desktop models available, with some weighing around 0.5 kg
<b>82</b>	HFNO with Humidifier - Flow Rate: 2-80 L/min, with some models offering up to 70 L/min - Oxygen Concentration: 21-100%, adjustable - Temperature Control: 31°C-37°C, with 7 levels adjustable - Humidity: $\geq 33$ mg/L at 37°C target - Screen: 4.3-inch to 5-inch touch screen - Alarms: 12-19 types, ensuring safe and effective treatment - Power Supply: AC 100-240V, 50/60Hz - Weight: Approximately 3.2 kg
<b>83</b>	Digital Video Laryngoscope portable with Reusable blades - Display: 3-inch to 3.5-inch LCD, with resolutions ranging from 640x480 to 1600x1200 - Camera: 2-megapixel camera with anti-fog lens and LED illumination - Blades: Reusable, made of stainless steel or resin, with sizes ranging from Miller 0 to Macintosh 5 - Battery: Rechargeable lithium-ion battery, with up to 180 minutes of continuous working time - Weight: Approximately 200-350g - Connectivity: USB output, with some models offering Wi-Fi or Bluetooth connectivity
<b>84</b>	Digital Video Laryngoscope portable with Disposable blades - Display: 3-inch to 3.5-inch LCD, with resolutions ranging from 640x480 to 1600x1200 - Camera: 2-megapixel camera with anti-fog lens and LED illumination - Blades: Disposable, made of medical polycarbonate, with sizes ranging from Miller 0 to Macintosh 4 - Battery: Rechargeable lithium-ion battery, with up to 240 minutes of continuous working time - Weight: Approximately 200-350g
<b>85</b>	Fiberoptic Laryngoscope set with 4 blades (Pediatric & Adult) - Material: High-grade stainless-steel construction for durability and corrosion resistance - Light Source: Fiber optic light transmission for bright, cool, and shadow-free illumination - Blades: Available in various sizes, including pediatric (0, 1, 2) and adult (2, 3, 4) - Handle: Ergonomic design for secure grip and controlled maneuverability - Sterilization: Autoclavable and reusable
<b>86</b>	Disposable Blades for video laryngoscope - Macintosh Blades: Curved design, available in sizes 2, 3, and 4 - Miller Blades: Straight design, available in sizes 00, 0, 1, 2, 3, and 4 - D-Blades: Designed for difficult airway intubation
<b>87</b>	Portable Capnograph - Measurement Range: 0-150 mmHg (0-20 kPa or 0-20% V/V) - Accuracy: $\pm 2$ mmHg (0-40 mmHg), $\pm 5\%$ (41-70 mmHg), $\pm 8\%$ (71-100 mmHg), $\pm 10\%$ (101-150 mmHg) - Respiration Rate: 3-150 breaths/min - Battery Life: Up to 10 hours

	- Weight: Approximately 600g											
<b>88</b>	<p>Digital Visual Stethoscope - Amplification: Up to 100x sound amplification</p> <p>- Visualization: LCD displays show heart and lung sounds in real-time</p> <p>- Recording: Many models let you record and playback sounds</p> <p>- Connectivity: USB, Bluetooth, or Wi-Fi for data transfer</p>											
<b>89</b>	<p><b>ECG Machine Single Channel -</b></p> <p>Channels: 1 channel, typically 3 or 4 electrodes</p> <table border="1" data-bbox="297 569 1027 1377"> <tr> <td>Bag volume of 600-700ml</td> </tr> <tr> <td>Stroke volume of 450ml</td> </tr> <tr> <td>15/22mm iso connector</td> </tr> <tr> <td>Pressure limiting values set at 40cmh<sub>2</sub>o</td> </tr> <tr> <td>Patient connector- standardized 22mm (outside) /15mm (inside) diameter</td> </tr> <tr> <td>Material- high quality durable silicone reusable</td> </tr> <tr> <td>Mask size- Pediatric size</td> </tr> <tr> <td>Neonate: 250ml</td> </tr> <tr> <td>Pediatric:500 ml\</td> </tr> <tr> <td>Adults: - 1600ml</td> </tr> <tr> <td>INFANT, CHILD AND ADULT SIZE MASKS FOR UMBO BAG</td> </tr> </table>	Bag volume of 600-700ml	Stroke volume of 450ml	15/22mm iso connector	Pressure limiting values set at 40cmh <sub>2</sub> o	Patient connector- standardized 22mm (outside) /15mm (inside) diameter	Material- high quality durable silicone reusable	Mask size- Pediatric size	Neonate: 250ml	Pediatric:500 ml\	Adults: - 1600ml	INFANT, CHILD AND ADULT SIZE MASKS FOR UMBO BAG
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<b>90</b>	<p>ECG Machine Three Channel - Channels: 3 channels, simultaneous recording</p> <table border="1" data-bbox="297 1444 1027 1688"> <tr> <td>HD LCD Touch Screen with standard grid background, which enable the non-grid paper print grid on it</td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>● Simultaneously 12 leads acquisition and display with multi acquisition mode: pre-sampling, real-time collection, triggering sampling and period sampling</li> </ul> </td> </tr> </table>	HD LCD Touch Screen with standard grid background, which enable the non-grid paper print grid on it	<ul style="list-style-type: none"> <li>● Simultaneously 12 leads acquisition and display with multi acquisition mode: pre-sampling, real-time collection, triggering sampling and period sampling</li> </ul>									
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	<ul style="list-style-type: none"> <li>● Single-Chamber Pacing and Dual-Chamber Pacing</li> <li>Original iFilter adaptive filtering technology has greatly improved the ECG signal quality</li> <li>● Multi-axisTP® printing technique for stable printing no matter what negative moving condition</li> <li>● Support the machine to send report by email directly</li> <li>● Electrode Disconnection Alarm (Diagram)</li> <li>● Support Wi-Fi and cable connecting to the third-party ECG network system, HIS and EMR system without ECG workstation</li> <li>● Support Peripherals: USB; SD card; Scanner; Laser printer; Card Reader; Projector; External keyboard and mouse</li> <li>● Manual/auto 3x4, 3x4+1,6x2, 6x2+1, 6x2+3,12x1 display and 12-Channels. Simultaneously printing (without distortion)</li> <li>● Storage formats: ZQECG, PDF, PNG, XML, HL7, DICOM, GDT</li> <li>● Max 60s waveform freezing and review function</li> </ul>	
<b>91</b>	<p>ECG Machine Six Channel - Channels: 6 channels, simultaneous recording</p> <ul style="list-style-type: none"> <li>- Leads: 12-lead ECG, with 10 electrodes</li> <li>- Sampling Rate: Up to 1000 Hz or higher</li> <li>- Display: LCD, TFT, or thermal printer</li> <li>- Interpretation: Many models offer automated interpretation</li> </ul>	
<b>92</b>	<p>ECG Machine 12- Channel - Channels: 12 channels, simultaneous recording</p> <ul style="list-style-type: none"> <li>- Leads: 12-lead ECG, with 10 electrodes</li> <li>- Sampling Rate: Up to 1000 Hz or higher</li> <li>- Display: High-resolution LCD or TFT</li> <li>- Interpretation: Advanced automated interpretation and analysis</li> </ul>	
<b>93</b>	<p>Non-Invasive blood Glucose meter - Measurement Method: Optical, electrical, or thermal sensing</p> <ul style="list-style-type: none"> <li>- Accuracy: Meets ISO 15197 standards</li> <li>- Range: 20-600 mg/dL or wider</li> <li>- Connectivity: Bluetooth, Wi-Fi, or USB for data transfer</li> </ul>	
<b>94</b>	<p>Air Purifier (Low power &amp; high Power) Low-Power Air Purifiers- Xiaomi Mi Air Purifier 2: Compact, energy-efficient, and affordable</p> <ul style="list-style-type: none"> <li>- Levo LV-H132: Quiet and compact with HEPA filter</li> <li>- Honeywell HPA100: Budget-friendly with True HEPA filter</li> </ul> <p>High-Power Air Purifiers- Dewarp DW-2000: Covers large spaces (up to 500 sq ft)</p> <ul style="list-style-type: none"> <li>- Winix 5500-2: Powerful with 5-stage filtration</li> <li>- Levoit LV600HH: High CADR, smart features, and large coverage</li> </ul> <p>Key Features to Consider- CADR (Clean Air Delivery Rate): Higher CADR for larger spaces</p> <ul style="list-style-type: none"> <li>- Filter Type: HEPA, Activated Carbon, or combo</li> </ul>	

	<ul style="list-style-type: none"> <li>- Noise Level: Look for quiet operation</li> <li>- Smart Features: Wi-Fi, app control, and voice assistant integration</li> </ul>
<b>95</b>	<p>NWPT Machine - Suction Pressure: -50 to -200 mmHg, adjustable</p> <ul style="list-style-type: none"> <li>- Modes: Continuous, intermittent, or variable pressure</li> <li>- Canister Size: 300-1000 mL, depending on model</li> <li>- Battery Life: Up to 24 hours or more</li> </ul>
<b>96</b>	<p>Foam Dressing (All sizes) - Absorbent: Manages moderate to heavy exudate</p> <ul style="list-style-type: none"> <li>- Breathable: Allows oxygen exchange and moisture vapor transmission</li> <li>- Non-adherent: Gentle on wounds, easy removal</li> <li>- Sizes: Various sizes available (e.g., 5x5 cm, 10x10 cm, 15x15 cm)</li> </ul>
<b>97</b>	<p>Automatic CPR Machine - Compression Rate: 100-120 compressions/min, adjustable</p> <ul style="list-style-type: none"> <li>- Compression Depth: 2-2.4 inches (5-6 cm), adjustable</li> <li>- Modes: Continuous, 30:2, or other ratios</li> <li>- Battery Life: Up to 2 hours or more</li> </ul>
<b>98</b>	<p>Digital PB Monitor (Hand held) - Measurement Range: Typically, 40-300 mmHg</p> <ul style="list-style-type: none"> <li>- Accuracy: <math>\pm 3</math> mmHg or better</li> <li>- Display: LCD or digital readout</li> <li>- Power: Batteries (often AA or AAA)</li> </ul>
<b>99</b>	<p>Hand held Metal Detector - Detection Depth: Varies (typically 1-10 inches)</p> <ul style="list-style-type: none"> <li>- Frequency: Usually 8-30 kHz</li> <li>- Sensitivity: Adjustable for different environments</li> <li>- Battery Life: Up to 40 hours or more</li> </ul>
<b>100</b>	<p>Oxygen Inhaler (O2 regulator high flow up to 15L/m) - Flow Rate: Up to 15 L/min</p> <ul style="list-style-type: none"> <li>- Regulator Type: Pressure-compensated or adjustable</li> <li>- Pressure Range: Typically, 50-2000 psi</li> <li>- Connections: Standard oxygen cylinder fittings</li> </ul>
<b>101</b>	<p>Hydrogen Inhaler - Hydrogen Purity: Typically, 99.9% or higher</p> <ul style="list-style-type: none"> <li>- Flow Rate: Usually 1-3 L/min</li> <li>- Concentration: Up to 1500 ppb (parts per billion)</li> <li>- Modes: Continuous or intermittent flow</li> </ul>
<b>102</b>	<p>Humidifier - Mist Control: Adjustable output for comfort</p> <ul style="list-style-type: none"> <li>- Tank Capacity: 1-6 liters, depending on model</li> <li>- Night Mode: Quiet or dim light operation</li> <li>- Auto Shut-off: Safety feature for when tank is empty</li> </ul>
<b>103</b>	<p>Air Oxygen Blender - Flow Range: Typically, 2-100 L/min or more</p> <ul style="list-style-type: none"> <li>- Oxygen Concentration: 21-100%, adjustable</li> <li>- Accuracy: <math>\pm 3\%</math> or better</li> </ul>

	- Pressure Range: Usually 50-100 psi
<b>104</b>	Synergy Aspirator - Suction Pressure: Adjustable, typically 0-300 mmHg - Flow Rate: Varies (e.g., 20-60 L/min) - Collection Bottle: Usually 1-3 liters - Power: Electric or battery-operated
<b>105</b>	Automatic Shoe cover machine - Coverage: Fits various shoe sizes - Material: Disposable plastic or fabric covers - Operation: Foot pedal or sensor-activated - Speed: Quick cover application (seconds)
<b>106</b>	Electro Surgical Unit (50W, 100W, 200W, 300W & 400W) - Power Output: 50W to 400W, depending on model - Modes: Cut, Coag, Blend, and sometimes advanced modes like LigaSure or Harmonic - Frequency: Typically, 300-500 kHz - Safety Features: Automatic shut-off, alarms, and grounding
<b>107</b>	Digital Spirometer (PFT) - Parameters: Measures FVC, FEV1, PEF, and more - Accuracy: Meets ATS/ERS standards - Display: Digital, with data storage and connectivity - Portability: Handheld or desktop models
<b>108</b>	LED Phototherapy Tube - Wavelength: Specific wavelengths for different treatments (e.g., 450nm for blue light, 630nm for red light) - Intensity: Adjustable or fixed output - Size: Various lengths and diameters available
<b>109</b>	Phototherapy Tube Types- UVB tubes: For psoriasis, vitiligo, and eczema - UVA tubes: For psoriasis and other skin conditions - Blue light tubes: For jaundice in newborns and acne treatment  Key Features- Wavelength: Specific UV or visible light spectrum - Intensity: Varies depending on treatment - Treatment duration: Typically, 10-30 minutes
<b>110</b>	Lead Skirts, Jackets, Neck Collars Large Size - Lead Equivalent: Typically, 0.25-0.5 mm Pb - Sizes: Large and customizable options available - Design: Comfortable, adjustable, and easy to clean
<b>111</b>	Lead Skirts, Jackets, Neck Collars Extra Large - Lead Equivalent: 0.25-0.5 mm Pb or higher - Sizes: Extra-large, with adjustable straps - Material: Lead or lead-free options

<b>112</b>	Lead Caps - Lead Equivalent: 0.25-0.5 mm Pb or higher - Design: Adjustable straps, comfortable fit - Coverage: Covers thyroid, head, and sometimes face
<b>113</b>	Extra Thyroid Collar for Old Aprons. - Compatibility: Check fit with your existing apron model - Lead Equivalent: 0.25-0.5 mm Pb or higher - Attachment: Velcro or Snap-On designs
<b>114</b>	Centrifuge 4000-7000/rpm Max RCF: 3000-5000, Angle Rotor: up to 12x15ml, Timer range: upto 100min, Motor: DC Brushless motor, Display: LCD, Panel: Touch Panel, Control: Micro Computer, Sample capacity: 18-30. USA, Japan, Europe
<b>115</b>	Centrifuge 10000/rpm and above Angle Rotor: upto 12x15ml, Timer range: upto 100min, Motor: DC Brushless motor, Display: LCD, Panel: Touch Panel, Control: Micro Computer, Sample capacity: 18-30.
<b>116</b>	Water Bath. (Stainless Steel interior, Max Volume: 5-20liters, Temperature: 05-100 °c, Display: LCD, USA/Japan/EU or Equivalent.)
<b>117</b>	Steam Inhalation Machine (Small) - Compact Design: Portable and space-saving - Steam Output: Adjustable or fixed, typically 2-4 ml/min - Medicament Options: Some models allow adding essential oils or meds
<b>118</b>	Stadio Meter - Measurement Range: Typically, 60-210 cm or 24-84 inches - Accuracy: ±0.1 cm or better - Design: Wall-mounted, portable, or digital models
<b>119</b>	Length Board - Measurement Range: Typically, 30-100 cm or 12-40 inches - Accuracy: ±0.1 cm or better - Design: Portable, lightweight, and easy to use
<b>120</b>	Interactive white board (IWB) for ENT Deptt: - Touchscreen Interface: Annotate, zoom, and navigate with ease - Connectivity: USB, HDMI, and wireless options - Software: Compatible with educational and presentation tools - Size: 55-86 inches or larger, depending on room setup
<b>121</b>	Splint Foam - Material: Lightweight, breathable foam - Thickness: Various options (e.g., 1/8", 1/4", 1/2") - Sizes: Customizable or pre-cut for specific applications
<b>122</b>	Book Scanner - Scanning Speed: Up to 1200 pages/hour or more - Resolution: 300-600 dpi or higher - Format Support: PDF, JPEG, TIFF, and more

<b>123</b>	Paper Shredder (7Ltr.) - Capacity: 7L bin, shreds up to 7-10 sheets at a time - Shred Type: Cross-cut or strip-cut options - Security Level: P-3 or P-4 for sensitive documents
<b>124</b>	Paper Shredder (16Ltr.) - Capacity: 16L bin, shreds up to 10-15 sheets at a time - Shred Type: Cross-cut or strip-cut options - Security Level: P-4 or P-5 for sensitive documents
<b>125</b>	High Flow Nasal Oxygen - Flow Rate: Up to 60 L/min or higher - FiO2: Adjustable oxygen concentration (21-100%) - Temperature Control: Heated humidification for comfort
<b>126</b>	Head Light for ENT - LED Light Source: Bright, focused beam with adjustable intensity - Comfortable Fit: Adjustable headband for long procedures - Magnification Options: Some models offer built-in loues or magnification
<b>127</b>	Smart Screen (diff: size 32 and above) - Touchscreen: Interactive, with multi-touch capabilities - 4K Resolution: Crisp, clear visuals - Connectivity: USB, HDMI, and wireless options
<b>128</b>	LED Screen (diff: size) - 4K or 8K Resolution: Crisp, clear visuals - High Brightness: Visible in various lighting conditions - Connectivity: HDMI, USB, and wireless options
<b>129</b>	Hysteroscope with all Accessories: (for Gynae deptt:) -- Hysteroscope: High-definition, rigid or flexible options - Loop: For resection or biopsy - Grasper: For removing tissue or foreign objects - Hook: For manipulating or retrieving tissue - Roller Ball: For ablation or coagulation - Dissector: For separating tissue - Scissor: For cutting tissue
<b>130</b>	Nitrous Oxide cylinder - Size: Various capacities (e.g., 1kg, 2kg, 4kg) - Pressure: Typically, 50-60 bar - Valve Type: Pin-index or bull-nose connections
<b>131</b>	Electric Nerve Stimulators. - Modes: TENS (Transcutaneous Electrical Nerve Stimulation), EMS (Electrical Muscle Stimulation) - Channels: Single or multiple channels for targeting different areas - Intensity: Adjustable pulse width and frequency
<b>132</b>	Bair Hugger Blanket (Full body, length:213cm, width 91cm) - Size: Full body, 213cm x 91cm - Material: Non-woven, breathable fabric - Compatibility: Designed for Bair Hugger warming units

<b>133</b>	<p>Electro cautery Machine - Modes: Cut, coagulate, blend</p> <ul style="list-style-type: none"> <li>- Power Output: Adjustable, typically up to 300W</li> <li>- Safety Features: Automatic shut-off, alarms</li> </ul>
<b>134</b>	<p>Diathermy Pad with Cable - Size: Various sizes available (check with supplier)</p> <ul style="list-style-type: none"> <li>- Adhesive: Strong, skin-friendly adhesive</li> <li>- Cable: Compatible with most diathermy units</li> </ul>
<b>135</b>	<p>Mayo Stand Tray (Trolley) - Stainless Steel: Durable, easy to sterilize</p> <ul style="list-style-type: none"> <li>- Adjustable Height: Flexible positioning</li> <li>- Tray Size: Various sizes available (check with supplier)</li> </ul>
<b>136</b>	<p>Examination Light LED - Bright, White Light: 30,000-50,000 lux</p> <ul style="list-style-type: none"> <li>- Adjustable Intensity: Tailor to exam needs</li> <li>- Long-Life LEDs: 50,000+ hours</li> </ul>
<b>137</b>	<p>Telescope 0° - 0° Angle: Straight view, ideal for diagnostics</p> <ul style="list-style-type: none"> <li>- High-Definition: Clear, detailed visuals</li> <li>- Durable: Designed for repeated sterilization</li> </ul>
<b>138</b>	<p>Telescope 0°4mm - 4mm Diameter: Balances visualization and invasiveness</p> <ul style="list-style-type: none"> <li>- 0° Angle: Straight view, ideal for diagnostics</li> <li>- High-Definition: Clear, detailed visuals</li> </ul>
<b>139</b>	<p>Thumb Machine digital - Portability: Compact, lightweight design</p> <ul style="list-style-type: none"> <li>- Digital Display: Clear, easy-to-read screen</li> <li>- Battery Life: Long-lasting, rechargeable</li> </ul>
<b>140</b>	<p>Clock Wall Blood Pressure Monitor (Aneroid) - Aneroid Mechanism: Accurate, no batteries needed</p> <ul style="list-style-type: none"> <li>- Wall-Mountable: Convenient, space-saving</li> <li>- Clock Design: Classic look, easy to read</li> </ul> <p>Benefits- Reliable: Aneroid technology, trusted readings</p> <ul style="list-style-type: none"> <li>- Convenient: Wall-mounted, no desk space needed</li> <li>- Easy to Use: Simple, straightforward design</li> </ul> <p>Considerations- Calibration: Check accuracy periodically</p> <ul style="list-style-type: none"> <li>- Cuff Size: Ensure proper fit for patients</li> </ul>
<b>141</b>	<p>Mobile ICU Chair (for physiotherapy purposes) - Adjustable Position: Recline, tilt, and elevate</p> <ul style="list-style-type: none"> <li>- Mobility: Locking wheels, easy to move</li> <li>- Comfort: Padded, with support options</li> </ul> <p>Benefits- Early Mobilization: Helps prevent ICU-acquired weakness</p> <ul style="list-style-type: none"> <li>- Versatile: Suitable for various therapies</li> </ul>

	- Space-Efficient: Mobile, easy to store
<b>142</b>	<p>Advance Portable patient floor Hoist (for physiotherapy purposes) - Portable: Lightweight, easy to move</p> <ul style="list-style-type: none"> <li>- Adjustable: Lifting capacity, height, and width</li> <li>- Safe: Emergency stop, overload protection</li> </ul> <p>Benefits- Easy Patient Handling: Reduces caregiver strain</p> <ul style="list-style-type: none"> <li>- Versatile: Suitable for various settings</li> <li>- Patient Comfort: Gentle, controlled movement</li> </ul>
<b>143</b>	<p>Neonate Flow Sensor for Ventilator - Low Dead Space: Minimizes CO2 rebreathing</p> <ul style="list-style-type: none"> <li>- High Accuracy: Reliable flow measurement</li> <li>- Compatible: Fits most neonatal ventilators</li> </ul> <p>Benefits- Precise Ventilation: Accurate flow control</p> <ul style="list-style-type: none"> <li>- Patient Safety: Alarms for disconnections</li> <li>- Easy to Use: Simple installation, calibration</li> </ul>
<b>144</b>	<p>High flow Neonate Circuit - Heated, humidified: Maintains optimal airway conditions</p> <ul style="list-style-type: none"> <li>- Low Compliance: Accurate tidal volume delivery</li> <li>- Kated Tube: Reduces rainout, improves safety</li> </ul> <p>Benefits- Improved Outcomes: Better oxygenation, reduced lung injury</p> <ul style="list-style-type: none"> <li>- Easy to Use: Simple setup, minimal adjustments</li> <li>- Patient Comfort: Gentle, non-invasive support</li> </ul>
<b>145</b>	<p>Spirometry machine cable - Compatible: Fits specific spirometer models</p> <ul style="list-style-type: none"> <li>- Durable: Resistant to wear and tear</li> <li>- Accurate: Ensures reliable test results</li> </ul> <p>Considerations- Check Compatibility: Ensure fit with your spirometer</p> <ul style="list-style-type: none"> <li>- Quality: opt for OEM or high-quality alternatives</li> </ul>
<b>146</b>	<p>UV Light (for OT Sterilization) - UVC Wavelength: 254nm, effective against bacteria, viruses</p> <ul style="list-style-type: none"> <li>- Adjustable Intensity: Tailor to room size, exposure time</li> <li>- Safety Features: Motion sensors, timers</li> </ul> <p>Benefits- Effective Disinfection: Reaches hard-to-clean areas</p> <ul style="list-style-type: none"> <li>- Chemical-Free: No toxic residues</li> <li>- Easy to Use: Simple installation, operation</li> </ul>

<p><b>147</b></p>	<p>Olympus Camera (Visera elit OTV-SI90) - 4K Resolution: Exceptional image clarity</p> <ul style="list-style-type: none"> <li>- Narrow Band Imaging (NBI): Enhanced visualization</li> <li>- Dual Focus: Sharp images at various distances</li> </ul> <p>Benefits- Accurate Diagnosis: Detailed, high-quality visuals</p> <ul style="list-style-type: none"> <li>- Versatile: Suitable for various endoscopic procedures</li> <li>- Easy to Use: Intuitive controls, ergonomic design</li> </ul> <p>Compatibility- Olympus Endoscopes: Seamless integration</p> <ul style="list-style-type: none"> <li>- Other Equipment: Check compatibility with your setup</li> </ul>
<p><b>148</b></p>	<p>Cable for Light Source (Olympus CLL-VI) - Compatible: Designed for Olympus CLL-VI light source</p> <ul style="list-style-type: none"> <li>- Durable: High-quality materials, resistant to wear</li> <li>- Optimal Light Transmission: Ensures bright, clear illumination</li> </ul>
<p><b>149</b></p>	<p>Camera Head for Light Source (Olympus CLL-VI) - High-Resolution Imaging: Excellent picture quality</p> <ul style="list-style-type: none"> <li>- Compatible: Designed for Olympus CLL-VI light source</li> <li>- Ergonomic Design: Easy handling, comfortable use</li> </ul> <p>Benefits- Accurate Imaging: Reliable, detailed visuals</p> <ul style="list-style-type: none"> <li>- Easy Integration: Seamless with Olympus equipment</li> <li>- Durable: Built for repeated use</li> </ul>
<p><b>150</b></p>	<p>Insufflator (Olympus UHI-4)</p> <ul style="list-style-type: none"> <li>-Gas Regulator</li> <li>-Diaphragm - High Flow Rates: Up to 45 L/min for efficient procedures</li> <li>- Pressure Control: Accurate, stable insufflation</li> <li>- Safety Features: Overpressure protection, alarms</li> </ul> <p>Components- Gas Regulator: Ensures consistent gas flow</p> <ul style="list-style-type: none"> <li>- Diaphragm: Reliable, durable for pressure regulation</li> </ul> <p>Benefits- Efficient Procedures: Fast, stable insufflation</p> <ul style="list-style-type: none"> <li>- Patient Safety: Advanced safety features</li> <li>- Easy to Use: Intuitive controls</li> </ul>

151	<p>Silicon Tube for Suction Silicone suction tubes are flexible, medical-grade, and autoclavable, typically featuring a 6–8mm ID (inner diameter) and 10–14mm OD (outer diameter). Designed for surgical or suction machines, these, transparent tubes have 60°±5% Shore A hardness, lengths of 2–3m, and withstand vacuum/aspiration with 2mm wall thickness.</p> <p>Key Technical Specifications</p> <p>Material: 100% Medical-grade silicone rubber.</p> <p>Dimensions (ID x OD): Common sizes include 6x10mm, 6x11mm, 7x11mm, and 8x14mm.</p> <p>Hardness: Typically, 60° ±5% Shore A.</p> <p>Length: Available in 2m, 3m, or 25m rolls.</p> <p>Performance: Autoclavable, high-temperature sterilization capable, and kink-resistant.</p> <p>Color: Translucent/clear for fluid visibility.</p>
152	<p><b>ENT Surgical Drill with Irrigation System: -</b></p> <p>Speed of 1000-50000min<sup>-1</sup></p> <p>Precise control by microcomputer</p> <p>Auto Cruise function</p> <p>Digital speed display maintenance</p> <p>Mode setting</p> <p><b>Contents:</b></p> <p>Control unit</p> <p>Foot Control Handpiece</p> <p>Stand</p> <p><b>E-Type Micromotor &amp; Cord</b></p> <p>Power Supply AC 230V</p> <p>Max Torque 6.0Ncm</p>
153	<p>Electric console Drill for Cochlear Implant Services: - - High-Speed: Up to 80,000 rpm for precise drilling</p> <p>- Adjustable Speed: Foot pedal control</p> <p>- Sterilizable: Designed for OR use</p>
154	<p><b>ENT STRAIGHT &amp; ANGLE HANDPIECE: -</b></p> <p><b>Surgical Straight Handpiece</b></p> <p>1:1 Direct Drive</p> <p>Fir Surgical Burs (Ø 2.35)</p> <p>Twist Chunk</p> <p>Clean Hand System max: 40,000min<sup>-1</sup></p> <p><b>Surgical Angle Handpieces</b></p> <p>1:1 Direct Drive</p> <p>For Surgical burs (Ø 2.35)</p> <p>Twist Chunk</p> <p>Clean Hand System max: 40,000min<sup>-1</sup></p>

155	Operating Microscope for Cochlear Implant Surgeries - Stainless Steel: Durable, easy to sterilize - Adjustable Height: Flexible positioning - Tray Size: Various sizes available (check with supplier)																											
156	Endoscope 0degree - 0° Angle: Straight view, ideal for nasal, laryngeal exams - High-Definition: Clear, detailed visuals - Durable: Designed for repeated sterilization																											
157	<table border="1"> <tr> <td data-bbox="293 520 440 583"></td> <td data-bbox="440 520 1170 583"><b>High-Flow Nasal Cannula (HFNC) Machines</b></td> </tr> <tr> <td data-bbox="293 583 440 646">1</td> <td data-bbox="440 583 1170 646">Model:</td> </tr> <tr> <td data-bbox="293 646 440 709">2</td> <td data-bbox="440 646 1170 709">Make:</td> </tr> <tr> <td data-bbox="293 709 440 772">3</td> <td data-bbox="440 709 1170 772">Country of Origin:</td> </tr> <tr> <td data-bbox="293 772 440 835">4</td> <td data-bbox="440 772 1170 835">Country of Manufacturer:</td> </tr> <tr> <td data-bbox="293 835 440 898">5</td> <td data-bbox="440 835 1170 898">Post Warranty Series &amp; Maintenance Percentage</td> </tr> <tr> <td data-bbox="293 898 440 961">6</td> <td data-bbox="440 898 1170 961"><b>TECHNICAL SPECIFICATIONS</b></td> </tr> <tr> <td data-bbox="293 961 440 1024">7</td> <td data-bbox="440 961 1170 1024">o Flow range suitable for neonates 1 – 10litre flow</td> </tr> <tr> <td data-bbox="293 1024 440 1087">8</td> <td data-bbox="440 1024 1170 1087">o Fio2 control 21–100%</td> </tr> <tr> <td data-bbox="293 1087 440 1150">9</td> <td data-bbox="440 1087 1170 1150">o Heated humidification (31–37°c)</td> </tr> <tr> <td data-bbox="293 1150 440 1213">10</td> <td data-bbox="440 1150 1170 1213">o Digital monitoring with alarms</td> </tr> <tr> <td data-bbox="293 1213 440 1276">11</td> <td data-bbox="440 1213 1170 1276">o Compatible neonatal interfaces</td> </tr> <tr> <td data-bbox="293 1276 440 1339">12</td> <td data-bbox="440 1276 1170 1339">o Continuous operation capability</td> </tr> </table>		<b>High-Flow Nasal Cannula (HFNC) Machines</b>	1	Model:	2	Make:	3	Country of Origin:	4	Country of Manufacturer:	5	Post Warranty Series & Maintenance Percentage	6	<b>TECHNICAL SPECIFICATIONS</b>	7	o Flow range suitable for neonates 1 – 10litre flow	8	o Fio2 control 21–100%	9	o Heated humidification (31–37°c)	10	o Digital monitoring with alarms	11	o Compatible neonatal interfaces	12	o Continuous operation capability	
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	6	<b>TECHNICAL SPECIFICATIONS</b>	
	7	o Relative Humidity Operating range 0% to 95% RH.	
	8	o Charge time 10 hours per battery from full discharge	
	9	o Heater power 4 LED indication of heater power; 25–100%	
	10	o Baby temperature °C Displays infant temperature	
	11	o Temperature set range 22.0 °C–38 °C (71 °F–100 °F) Temperature rise time 30 minutes	
<b>159</b>	Protex ETT Cuff Pressure Gauge (Manometer) - Accurate Measurement: Measures cuff pressure precisely - Easy to Use: Simple, intuitive design - Adult ICU Use: Suitable for adult patients		
<b>160</b>	<b>Phototherapy Unit</b>		
	Compatible with incubators, warmers, and bassinets		
	High-density led light, fan-free		
	Lcd display interface		
	Programmable treatment duration		
	5 intensity levels with single-touch max mode		
	Pneumatic height adjustment		
	360 degree angle adjustment		
	Auto stop and end-of-treatment alarm		
	Skin temperature monitoring		

161	<p><b>HD Camera with Monitor (32degree Scree) and light Source</b>  High definition Endovision camera system  Connect module, for use with up to 3link modules, resolution 1920x1080 pixels, with integrated and digital image processing Module, power supply 100-120VAC/200-240VAC, 50/60 Hz,  <b>Consisting of:</b> -Mains Cord, length 300cm -DVI-D Connecting cable, length 300cm  SCB Connecting cable, length 100cm -USB Flash Drive  USB Silicone Keyboard, with touchpad, US  <b>Three chip camera head, power supply 100-120VAC/200-240VAC, 50/60</b>  Consisting of:- - Main cord, length 300cm. -Link Cable, length 20cm  <b>Three-Chip Full HD Pendulum Camera Head;</b> compatible, with pendulum system and fixed focus, progressive scan, soakable, gas- and plasma sterilizable, focal length f=16mm, 2freely programmable camera head buttons.  <b>Video processor for use with flexible video endoscopes</b> and one-chip camera heads (up to Full HD), Power supply 100-120VAC/200-240VAC, 50/60 Hz,  <b>Consisting of:</b> - -Mains Cord, length 300cm. -Link Cable, length 20cm for use 200EN video endoscope Adaptor, color systems PAL/NTSC, length 60cm  <b>Cold light Fountain Power LED 175 SCB with integrated</b>  High-performance LED and light outlet, power supply 110-240VAC, 50/60Hz  <b>Consisting of:</b> -Cold light Fountain Power LED -Main Cord -Connecting cable  <b>Fiber optic light cable, with straight connector, diameter</b>  - 3.5mm, length 230cm. -26" Full HD Monitor, color systems PAL/NTSC, max, screen resolution 1920x1080, image format 16:9, Interface: power supply 85-264 VAC, 50/60Hz, wall mounted with VESA 100 adaption, Video inputs: DVI, m VGA, S-Video, Composite, Video outputs: DVI, S-Video,  <b>Including:</b> -Trolley Powder Coated Rides on 4 Antistics, Dual Wheels,  -2 Equipped with Locking (Front) 2 Fixed Shelves, 1 Drawer unit with lock (Locally Supply)</p>																	
162		<p><b>Chest Drain (Easy Drain System) – to be made available in pharmacy</b></p> <table border="1" data-bbox="293 1367 1170 1879"> <tr> <td data-bbox="293 1367 440 1430">1</td> <td data-bbox="440 1367 1170 1430">Model:</td> </tr> <tr> <td data-bbox="293 1430 440 1493">2</td> <td data-bbox="440 1430 1170 1493">Make:</td> </tr> <tr> <td data-bbox="293 1493 440 1556">3</td> <td data-bbox="440 1493 1170 1556">Country of Origin:</td> </tr> <tr> <td data-bbox="293 1556 440 1619">4</td> <td data-bbox="440 1556 1170 1619">Country of Manufacturer:</td> </tr> <tr> <td data-bbox="293 1619 440 1682">5</td> <td data-bbox="440 1619 1170 1682">Post Warranty Series &amp; Maintenance Percentage</td> </tr> <tr> <td data-bbox="293 1682 440 1745">6</td> <td data-bbox="440 1682 1170 1745"><b>TECHNICAL SPECIFICATIONS</b></td> </tr> <tr> <td data-bbox="293 1745 440 1808">7</td> <td data-bbox="440 1745 1170 1808">Disposable, sterile chest drainage system</td> </tr> <tr> <td data-bbox="293 1808 440 1871">8</td> <td data-bbox="440 1808 1170 1871">Multi-chamber (collection, water seal, suction control)</td> </tr> </table>	1	Model:	2	Make:	3	Country of Origin:	4	Country of Manufacturer:	5	Post Warranty Series & Maintenance Percentage	6	<b>TECHNICAL SPECIFICATIONS</b>	7	Disposable, sterile chest drainage system	8	Multi-chamber (collection, water seal, suction control)
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	9	Capacity: $\geq 2000$ ml	
	10	Clear calibrated collection chamber	
	11	Anti-reflux valve system	
	12	Compatible with suction source	
	13	Leak detection and air flow monitoring	
	14	Suitable for neonatal use	
	15	Ready-to-use, single-use sterile packaging	
<b>163</b>	<p>Hanalox Mobile OT Light - Illumination Intensity: Up to 1,70,000 Lux</p> <ul style="list-style-type: none"> <li>- Color Temperature: 4000-5000 K</li> <li>- LED Life: 50,000 hours</li> <li>- Adjustable: Focusing and illumination adjustment</li> <li>- Mobility: Portable with wheels</li> </ul>		
<b>164</b>	<p>Mobile Stand Lamp - Adjustable Height: Flexible positioning</p> <ul style="list-style-type: none"> <li>- LED Light: Bright, energy-efficient illumination</li> <li>- Mobile Base: Stable, easy to move</li> </ul>		
<b>165</b>	<p>Doppler Fetal monitor (sonic aid) - Fetal Heart Rate Monitoring: Accurate detection, 50-210 bpm range</p> <ul style="list-style-type: none"> <li>- Probe Types: Waterproof, with gel, for reliable signal</li> <li>- Portable: Battery-powered, compact design</li> </ul>		
<b>166</b>	<p><b>Cystoscope full Set (Telescope 30°)</b>, enlarged view, Diameter 4mm, Length 30cm, autoclavable, fiberoptic light transmission incorporated. Cystoscope-Urethroscopy Sheath, 22Fr, <b>Consisting of:-</b> Sheath Obturator and 2 LUER-Lock cones Cystoscope Urethroscopy Sheath, 17Fr, <b>Consisting of:</b> Cystoscope-Urethroscopy Sheath Obturator and 2 LUER-Lock Cones Telescope Bridge with 2 lockable instrument channels with ratchet Grasping Forceps for removal of foreign bodies, 7Fr. double action jaws, flexible, length 40cm optical biopsy forceps, double action jaws Coagulating Electrode, 3 Fr., unipolar, length 53cm Monopolar High Frequency Cord with 4mm plug for HF-Unit, older models; length 300cm.</p>		

167	<p><b>Telescope 6degree parallel eye piece length 20cm</b></p> <p>Operating sheath 24FR  hollow obturator  Drill cut shaver hand piece  Handle for the shaver system  Shaver blades concave and serrated blades 32cms length and 4mm diameter  Coagulation electrode and cored bipolar  Suction unit compatible with the system with complete accessories  Irrigation unit for safe pressure control dilation.</p>
168	<p><b>Hysteroscopy telescope 30degree</b></p> <ul style="list-style-type: none"> <li>-Biopsy and Grasping Forceps, semirigid, double action jaws, 5Fr. Length 34cm</li> <li>-Scissors, semirigid, blunt, single action jaws, 5Fr. Length 34cm</li> <li>-Scissors, pointed, single action jaws, semirigid 5Fr. Length 34cm</li> <li>-Punch, through-cutting, single action jaws, 5Fr. Length 34cm</li> <li>-Biopsy spoon Forceps, semirigid, double action jaws, 5Fr. Length 34cm</li> <li>-Tenaculum grasping Forceps, double action jaws, 5Fr. length 34cm</li> <li>-Myoma Fixation instrument, semirigid 5Fr. Length 34cm</li> <li>-Bipolar Dissection Electrode, semirigid, 5Fr, length 34</li> <li>-Needle Electrode, Unipolar 5Fr. length 34cm</li> <li>-Polypectomy Loop, unipolar, 5Fr, length 34cm</li> <li>-Unipolar High frequency cord, with 4mm plug, length 300cm for models, Erbe type T, Older models and Ellman.</li> <li>-Bipolar High Frequency cord, Length 300cm, for coagulator, and Erbe-coagulator, T- and ICC types.</li> </ul>
169	<p><b>Bipolar Resectoscope (Saline Resection)</b></p> <p>Telescope 12", 2.9mm, length 30cm, autoclavable, fiberoptic light transmission incorporated.  Color code: black</p> <p>Electrome: - Working Element, Cutting Loop, bipolar Coagulation Electrode, bipolar, High frequency cord, Protection Tube.</p> <p>Cutting loop, bipolar, 21. Fr, color code: white for use with telescope</p> <p>Coagulation Electrode, bipolar, ball end, 21 Fr. color code white for use with telescope.</p> <p>Cutting electrode, bipolar pointed, 21Fr. color code: white for use with Telescopes</p> <p>Resectoscope sheath, including connecting tube for in and out flow for continuous irrigation suction , 22Fr, oblique beak, rotatable inner sheath with ceramic insulation for use with wording elements, and 2.9mm Optics 12".</p> <ul style="list-style-type: none"> <li>-Standard Obturator, for use with resectoscope sheath color code: white</li> <li>-High End-Set power supply 220-240 VAC, 50/60 Hz, HF connecting sockets: bipolar combination multifunction unipolar 3-pin + Erbe Neutral electrode combination 6.3mm jack and 2-pin system</li> </ul> <p>requirements: Software release with u upgradable features.</p>

170.1	<p><b>Oscillating Bone Saw System – Orthopaedic Surgery</b></p> <p><b>General Requirements</b>          Designed for trauma, arthroplasty, Hand and reconstructive orthopaedic surgery          CE and/or FDA approved          Modular system compatible with multiple attachments          Fully autoclavable handpieces          Ergonomic, lightweight design          Low vibration and low noise output</p>
170.2	<p><b>Oscillating Saw Handpiece</b>          Oscillation speed: <math>\geq 12,000</math>–20,000 oscillations per minute (OPM)          Oscillation angle: <math>5^{\circ}</math>–<math>8^{\circ}</math>          High torque output for cortical bone cutting          Variable speed control (progressive trigger)          Quick-lock blade coupling system          360° blade positioning capability          Low heat generation technology</p>
170.3	<p><b>Blade Compatibility</b>          System must be compatible with:          Standard trauma saw blades          Arthroplasty saw blades          Narrow and wide blades          Long and short blades          Offset blades          Sagittal blade attachments (if modular)          Blade length range: approximately 50 mm – 120 mm          Sterilizable and reusable blade options preferred</p>
170.4	<p><b>Power Source</b>          Option A: Electric Console-Based System          Compact digital control console          Foot pedal control          Speed modulation control          Irrigation integration option          Overheat protection system          Option B: Battery-Powered System (Preferred for mobility)          Lithium-ion sterile battery packs          Minimum 2–3 batteries included          Minimum runtime: 30–60 minutes continuous cutting          Fast charging station          Battery charge indicator</p>
170.5	<p><b>Safety Features</b>          Thermal control system to minimize bone necrosis          Safety lock mechanism          Splash protection          Electrical safety certification</p>

	Overload protection
<b>170.6</b>	<p><b>Additional Accessories Required</b></p> <ul style="list-style-type: none"> <li>Set of assorted oscillating blades</li> <li>Sterilization trays</li> <li>Battery charging unit (if battery system)</li> <li>Foot pedal (if console-based)</li> <li>Maintenance kit</li> <li>Spare coupling mechanism</li> <li>Minimum 2-year warranty</li> <li>On-site installation and training</li> </ul>
<b>170.7</b>	<p><b>Clinical Justification</b></p> <p>Required for:</p> <ul style="list-style-type: none"> <li>Long bone osteotomies</li> <li>Total knee arthroplasty</li> <li>Hip procedures</li> <li>Complex fracture fixation</li> <li>Bone graft harvesting</li> <li>Revision surgeries</li> </ul> <p>Improves:</p> <ul style="list-style-type: none"> <li>Surgical efficiency</li> <li>Cutting precision</li> <li>Operative time reduction</li> <li>Training quality for residents</li> </ul>
<b>171</b>	<p><b>Laposcopic Hand Piece for Maxium Diathermy</b></p> <ul style="list-style-type: none"> <li>· <b>Operating Modes:</b> Monopolar (Cut/Coag/Blend/Endo Cut) and Bipolar (Micro/Macro/Seal).</li> <li>· <b>Power Output (Max):</b> 300W to 400W (Monopolar); 100W–150W (Bipolar).</li> <li>· <b>Operating Frequency:</b> 350 kHz to 660 kHz (high-frequency).</li> <li>· <b>Shaft Diameter:</b> Commonly 5mm or 10mm.</li> <li>· <b>Length:</b> Standard 33cm to 37cm (45cm available for bariatric).</li> <li>· <b>Rotation:</b> 360-degree, usually via a finger wheel.</li> <li>· <b>Durability:</b> Autoclave compatible, with many allowing up to 50+ cycles.</li> <li>· <b>Material:</b> Insulated stainless steel or medical-grade plastic.</li> <li>· <b>Safety Features:</b> Tissue impedance monitoring, automatic return electrode monitoring (REM), and non-stick, golden-coated tips</li> </ul>
<b>172</b>	<b>Schare Laparoscopic for harmonic</b>

	<ul style="list-style-type: none"> <li>· <b>Operating Frequency:</b> 55.5 kHz</li> <li>· <b>Vessel Sealing Capacity:</b> Up to 5 mm (standard); up to 7 mm (Harmonic ACE+7, Harmonic 1100)</li> <li>· <b>Shaft Diameters:</b> 5 mm</li> <li>· <b>Shaft Lengths:</b> Available in 14 cm, 23 cm, 36 cm, and 45 cm (depending on the model)</li> <li>· <b>Blade Types:</b> Curved, tapered tip with non-stick coating</li> <li>· <b>Generator Compatibility</b></li> </ul>
173	<p><b>Diathermy 400 Watt</b></p> <ul style="list-style-type: none"> <li>· <b>Max Power Output:</b> 400W Monopolar Cut, 100-150W Coagulation, and 70-100W Bipolar Coagulation.</li> <li>· <b>Operating Frequency:</b> Typically 425 kHz to 525 kHz, or 455 kHz (digitally stabilized).</li> <li>· <b>Working Modes:</b> Often includes Pure Cut, Blend 1, Blend 2, Soft Coag, and Forced Coagulation.</li> <li>· <b>Input Power:</b> 220V±22V, 50Hz, with a maximum consumption around 750VA - 1000VA.</li> <li>· <b>Safety Features:</b> Tissue response technology, NEM (Neutral Electrode Monitoring) for pad contact quality, and automatic power cut-off.</li> <li>· <b>Display &amp; Control:</b> Digital display panel for precise power adjustment.</li> </ul>
174	<p><b>Bone Drill with attachments</b></p> <ul style="list-style-type: none"> <li>• <b>Speed:</b> 0–1300 RPM (Variable)</li> <li>• <b>Torque:</b> 7500g/cm or 3.3N/m</li> <li>• <b>Operating Voltage:</b> 14.4V (Ni-MH or Lithium-ion batteries)</li> <li>• <b>Noise Level:</b> ≤ 65 dB</li> <li>• <b>Chuck Capacity:</b> 0.6mm–6mm or 0.6mm–8mm</li> <li>• <b>Run-out:</b> ≤ 0.5mm</li> <li>• <b>Weight:</b> ~1.5 kg (handpiece) approx.</li> <li>• <b>With Common Attachments</b></li> </ul>
175	<p><b>Electric Tourniquet</b></p> <p>Electronic tourniquet systems are specialized, automated medical devices designed for precise blood flow restriction during surgery, featuring digital pressure control (typically 0–500 mmHg), dual-port capabilities for bilateral use, and safety alarms for leak detection</p> <p>. Key specs include LCD/OLED displays, battery backup (6–24 hours), and automatic regulation</p>

	with $\pm$ 2-5 mmHg accuracy
<b>176.1</b>	<p><b>Orthopaedic Micro Drill &amp; Saw System (Hand Surgery)</b>  Specifically designed for hand and small bone surgery  Lightweight and ergonomic  Autoclavable components  CE and/or FDA approved  Compatible with standard mini and small fragment systems</p>
<b>176.2</b>	<p><b>Micro Drill Handpiece</b>  High-speed drill capability: 0–30,000 RPM  Forward and reverse rotation  Variable speed control (progressive trigger)  Low vibration and low noise output  Cannulated option preferred (for K-wires)  Compatible with:  0.6 mm – 3.2 mm drill bits  0.8 mm – 2.0 mm K-wires  Keyless chuck preferred  Quick coupling mechanism  Fully autoclavable</p>
<b>176.3</b>	<p><b>Oscillating Saw Handpiece</b>  Oscillation angle: 5°–8°  Oscillation speed: minimum 10,000–14,000 oscillations/min  Compatible with:  Micro saw blades (10–30 mm width)  Straight and offset blades  Low heat generation  Quick blade locking mechanism  Autoclavable</p>
<b>176.4</b>	<p><b>Power Source</b>  Battery Powered System (Preferred for portability)  Sterilizable battery packs (minimum 2)  Fast charging unit  Minimum runtime: 30–45 minutes continuous use  Lithium-ion technology</p>
<b>176.5</b>	<p><b>5. Additional Accessories</b>  Micro drill bit set (1.1 mm, 1.5 mm, 2.0 mm, 2.5 mm, 2.7 mm)  K-wire driver attachment  AO-compatible coupling  Sterilization trays  At least 2 sterile batteries (if battery operated)  Spare saw blades (variety sizes)  Maintenance kit  Warranty minimum 2 years</p>

177.	<b>Air O2 Blender</b>	
	Model:	
	Make:	
	Country of Origin:	
	Country of Manufacturer:	
	Post Warranty Series & Maintenance Percentage	
	<b>TECHNICAL SPECIFICATIONS</b>	
	o Fio2 range 21–100% with $\pm 3\%$ accuracy	
	o Flow range 0.1–30 l/min with ultra-low flowmeter (0–1 l/min)	
	o Compatible with standard gas outlets	
	o Audible alarm for gas failure	
	o Minimum two gas outlets	
	o Oxygen analyzer provision	
o Iso compliant medical-grade system		
178.	<b>Incubators</b>	
	1	Model:
	2	Make:
	3	Country of Origin:
	4	Country of Manufacturer:
	5	Post Warranty Series & Maintenance Percentage
	6	<b>TECHNICAL SPECIFICATIONS</b>
	7	· <b>Regulatory compliance:</b> FDA 510(k) cleared / CE marked, compliant with IEC 60601-2-19
	8	· <b>Temperature control:</b> Microprocessor-controlled air & skin (servo) temperature system

	9	· <b>Thermoregulation:</b> Double-wall hood with <b>bi-directional airflow for stable temperature</b>
	10	· <b>Humidity system:</b> Integrated <b>servo-controlled humidity</b> for neonatal care
	11	· <b>Display system:</b> Large <b>color touchscreen display</b> for monitoring
	12	· <b>Patient access:</b> Dual access doors, portholes, and <b>removable panels</b> for full access
	13	· <b>Mattress system:</b> <b>360° rotating mattress</b> with tilt up to ~12°
	14	· <b>Heat loss protection:</b> “Air Boost” system to reduce heat loss during door opening
	15	· <b>Pre-warm mode:</b> Automatic preheat mode (~25% power) for patient admission preparation
	16	· Easy-to-clean surfaces, removable parts, and humidity system designed for hygiene
	17	· SPO2 probe, skin probe
	18	· In built weighing option
<b>179</b>	<b>Manual Staining Station</b>	
<b>1</b>	· At least 14 jars stations with extra jars provisions.	
<b>2</b>	· Jars/ troughs holds at least 300-350ml	
<b>3</b>	· Troughs / jars contains covers to avoid evaporation	
<b>4</b>	· Slides racks should hold at least 20 slides with slide racks provisions	
<b>5</b>	· Length at the most should be 90cm and width 40cm.	

**SNO 10: MISCELLENOUS ACCESSORIES**

	<b>Misc. Items</b>	<ol style="list-style-type: none"> <li data-bbox="597 1232 1430 1640"> <b>1. Keyboard A4Tech or equivalent (Branded)</b> <ul style="list-style-type: none"> <li data-bbox="812 1268 1430 1331">• USB wired keyboard (preferred) or optional 2.4 GHz wireless</li> <li data-bbox="812 1339 1430 1402">• Full-size layout with 104/105 keys including numeric keypad and function keys</li> <li data-bbox="812 1411 1430 1474">• Durable keys with minimum 10 million keystroke lifespan</li> <li data-bbox="812 1482 1430 1545">• Plug &amp; Play compatibility with Windows and Linux systems</li> <li data-bbox="812 1554 1430 1640">• Spill-resistant, ergonomic design with adjustable tilt stands and OEM branding suitable for institutional use</li> </ul> </li> <li data-bbox="597 1648 1430 1883"> <b>2. Mouse A4 Tech or equivalent (Branded)</b> <ul style="list-style-type: none"> <li data-bbox="812 1684 1430 1747">• USB wired mouse (preferred) or optional wireless (2.4 GHz)</li> <li data-bbox="812 1755 1430 1818">• Optical sensor with minimum 1000 DPI resolution for smooth tracking</li> <li data-bbox="812 1827 1430 1883">• Ergonomic design suitable for long-duration hospital/office use</li> </ul> </li> </ol>
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		<ul style="list-style-type: none"> <li>• Plug &amp; Play compatibility with Windows and Linux systems (no driver required)</li> <li>• Durable build with minimum 5 million click lifespan and scroll wheel functionality</li> </ul> <ol style="list-style-type: none"> <li>3. <b>Mouse PAD for computer</b></li> <li>4. <b>Simple power supply for computer</b></li> <li>5. <b>PC Processor:Corei3:4<sup>th</sup> Generation (Intel or equivalent)</b></li> <li>6. <b>Mother board: Corei3:4<sup>th</sup> Generation (Intel or equivalent)</b></li> <li>7. <b>External wifi device catcher.</b></li> <li>8. <b>Air Blower Machine</b></li> <li>9. <b>Soldering Gun</b></li> <li>10. <b>Digital Multimeter</b></li> <li>11. <b>Thermal Paste</b></li> <li>12. <b>Soldering Wire</b></li> <li>13. <b>Insta Computer Cleaner</b></li> <li>14. <b>USB to SATA (Hard drive converter)</b></li> <li>15. <b>Dock Station (All type of Hard Desk connections)</b></li> <li>16. <b>Power Extension board for computer system</b></li> <li>17. <b>Multi-Port Adaptor USB</b></li> <li>18. <b>CMOS Cell</b></li> </ol>
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SNo	Item	Description
1	<b><u>SMS Bundle</u></b>	<p>In line with the requirements for corporate clientele, Bulk SMS solution to provide state of the art solution for the business use. To create and send bulk SMS's to employees and customers.</p> <p>Users have to manage, schedule and send messages to multiple recipients in Pakistan.Schedule Messages: Allows you to schedule messages to any date and time</p> <ul style="list-style-type: none"> <li>• Make new groups : Make, view and edit recipient groups as needed.</li> <li>• May Provide API to integrate with existing HMIS and Website.</li> <li>• Multiple Languages: English, Urdu, Pashto, Chinese are supported as the need may bec.</li> <li>• Message Templates: Creating, modifying and re-using message templates based on your requirements.</li> <li>• Group SMS account status can be checked through portal.</li> <li>• Dynamic SMS: Allowing us to send personalized message to each recipient.</li> <li>• Send flash SMS: Allowing us to send a message that will appear on the recipient's mobile screen directly so that the recipient does not have to go to the mobile phone inbox to read the message, nor is the SMS allocated to the SMS inbox.</li> <li>• Should be having a mask.</li> </ul>

## PRICE SCHEDULE IN PAK. RUPEES

(PROVIDED IN THE END WITH ITEM'S LIST)

Name of Bidder \_\_\_\_\_

IFB Number \_\_\_\_\_

Page of \_\_\_\_\_

Stamp & Signature of Bidder \_\_\_\_\_

Note: In case of discrepancy between unit price and total, the unit price shall prevail.

<b>SNO 10: MISCELLENOUS ACCESSORIES</b>				
1	2	3	4	5
<b>SNO. of the Item accordin g to BSDS</b>	<b>Item Name</b>	<b>Description</b>	<b>Unit price per each item Without all Taxes</b>	<b>Unit price per each item With all Taxes</b>

**LOWEST BID CERTIFICATE (FORMAT)**

To:

MTI-HAYATABAD MEDICAL COMPLEX

PESHAWAR

Bid Reference No: \_\_\_\_\_

Dated: \_\_\_\_\_

Title of Work/Goods: \_\_\_\_\_

Respected Sir,

I/We the undersigned M/S \_\_\_\_\_ hereby solemnly declare and undertake that;

We M/S \_\_\_\_\_ undertake that the prices given are reasonable, economic as per the current market and not given higher/more than this rate/price/financial bid to any other public sector/government i.e., Provincial governments and government of Pakistan with the same terms and conditions in the current financial year 2025-26.

In-case of any mid-declaration the procuring entity reserve the right to debar/blacklist and forfeit bid security in larger public interest.

Signature of CEO & Official Seal

Name of the bidder:

Dated:

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