



**Government of Khyber Pakhtunkhwa  
Health Department  
Procurement Cell (DGHS)**

## **Standard Bidding Documents**

**For National Competitive Bidding  
Pakistan**

**For**

**SELECTION & RATE CONTRACTING FOR MACHINERY &  
EQUIPMENT, GENERATORS, AMBULANCES WITH  
AMBULATORY ITEMS, MEDICAL WASTE TREATMENT,  
INSTRUMENTS & OTHER HOSPITAL SUPPLIES ETC**

**FOR THE YEAR 2017-18**

**April 2017**

### **PART ONE (UNCHANGEABLE)**

- ☐ Instructions to Bidders (ITB)
- ☐ General Conditions of Contract (GCC)

## **PREFACE**

These Bidding Documents have been prepared for use by Procuring Entities and their implementing agencies in the procurement of Goods through National Competitive Bidding (NCBs) under Rule (06) as well International Competitive Bidding (ICBs) Rule 41(g) KPPRA Rules 2014. These SBDs are prepared for Rate Contract under Government of Khyber Pakhtunkhwa District Govt Rules of Business 2015, 2nd Schedule Rule 3 (2), and Serial No.11 (Health) Sub-rule xiii for procurement of Equipment

In order to simplify the preparation of bidding documents for all procurement, the Bidding Documents are grouped in two parts based on provisions, which would remain the same for all the related procurements and that which are specific for each procurement Provisions, which are intended to be used un-changed 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.

This is Part one, which is fixed and contains provisions, which are to be used, unchanged. Each section is prepared with notes intended only as information for the Procuring agency or the person drafting the bidding documents. They shall not be included in the final documents.

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## **Part One – Section 1**

### **Instructions to Bidders**

#### **Notes on the Instructions to Bidders**

This section of the bidding documents provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring agency. 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/every 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 agency, care must be exercised to avoid contradictions between clauses dealing with the same matter.

These Instructions to Bidders will not be part of the contract.

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## Instructions to Bidders

### A. Introduction

<b>1. Source of Funds</b>	1.1	The Procuring agency/ies have 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 bidding documents are issued.
	1.2	The funds referred to above in addition shall be —Public Fund which according to 2 (l) of KPPRA 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 agency 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 agency 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 eligible bidders from eligible source as defined in the KPPRA Rules, 2014 and its Bidding 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 agency 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	Bidders shall not be eligible to bid if they are under a declaration of Ineligibility for corrupt and fraudulent practices issued by any government organization in accordance with the Section 44(1) KPP Rules 2014.

<b>3. Eligible Goods &amp; 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 Bidding 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 mind, 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 agency named in the Bid Data Sheet, hereinafter referred to, as —the Procuring agency, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
		<b>B.The Bidding Documents</b>
<b>5. Content of Bidding Documents</b>	5.1	The bidding documents include: a) Instructions to Bidders (ITB) b) Bid Data Sheet c) General Conditions of Contract (GCC) d) Special Conditions of Contract (SCC) e) Schedule of Requirements f) Technical Specifications g) Bid Form and Price Schedules h) Bid Security Form i) Contract Form j) Performance Security Form k) Manufacturer's Authorization Form
	5.2	The Bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in the rejection of its bid.
<b>6. Clarification of Bidding Documents</b>	6.1	An interested Bidder requiring any clarification of the bidding documents may notify the Procuring agency in writing. The Bidding Procuring agency will respond in writing to any request for Documents clarification of the bidding 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 agency'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 bidding documents.



<b>7. Amendment of Bidding Documents</b>	7.1	At any time prior to the deadline for submission of bids, the Procuring agency, for any reason, whether at its own initiative or in response to a clarification requested by an interested Bidder, may modify the bidding documents by amendment.
	7.2	All interested bidders that have received the bidding 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 agency, 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 agency 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: a) a Bid Form and a Price Schedule completed in accordance with ITB Clauses 10, 11, and 12 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; 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 bidding documents; and d) Bid security furnished in accordance with ITB Clause 15.
<b>10. Bid Form</b>	10.1	The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding 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 agency and will not in any way limit the Procuring agency'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, In pursuance 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 Establishing Bidder's</b>	13.1	Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, 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 agency'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 agency's satisfaction:</p> <p>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 agency's country;</p> <p>b) That the Bidder has the financial, technical, and production capability necessary to perform the contract;</p> <p>c) That, in the case of a Bidder not doing business within the Procuring agency'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</p> <p>d) That the Bidder meets the qualification criteria listed in the Bid Data Sheet.</p>
<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 bidding 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 bidding 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 e 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 agency; and</li> <li>c) An item-by-item commentary on the Procuring agency's 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.</li> </ul>
	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 b y 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 agency'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.
	15.2	The bid security is required to protect the Procuring agency against the risk of Bidder's conduct, which would warrant the security's forfeiture, pursuant to ITB Clause 15.7.
	15.3	<p>The bid security shall be in Pak. Rupees and shall be in one of the following forms:</p> <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 agency's country, in the form provided in the bidding documents or another form acceptable to the Procuring agency and valid for thirty (30) days beyond the validity of the bid; or</li> <li>b) Irrevocable en-cashable 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 agency 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 agency 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: a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or b) In the case of a successful Bidder, if the Bidder fails: i. To sign the contract in accordance with ITB Clause 32; Or ii. To furnish performance security in accordance with ITB Clause 33.
<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 agency, pursuant to ITB Clause 19. A bid valid for a shorter period shall be rejected by the Procuring agency as non -responsive.
	16.2	In exceptional circumstances, the Procuring agency 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. The bidder/ person or persons signing the bid shall initial all pages of the bid, except for un-amended printed literature.
	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 the 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 agency 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 agency 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 agency 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 agency may, at its discretion, extend this deadline for the submission of bids by amending the bidding documents in accordance with ITB Clause 7, in which case all rights and obligations of the Procuring agency and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.
	9.3	In order to avoid the delays, the Procuring agency will hold a pre-bid meeting under section 24 (6) of KPPRA Act 2012 as per details given in Bid Data Sheet. The purpose of the pre-bid meeting is to clarify the functional requirements of the Procuring agency and the feedback from the bidders so offered. This is in line with the general principles of procurement as enunciated under section 03 of the KPPRA Act 2012
<b>20. Late Bids</b>	20.1	Any bid received by the Procuring agency after the deadline for submission of bids prescribed by the Procuring agency 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 agency 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 no 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 agency 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 agency, 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 agency will prepare minutes of the bid opening.
<b>23. Clarification of Bids</b>	23.1	During evaluation of the bids, the Procuring agency 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. The minor informality as indicated in ITB 24 will be waived of by getting written clarification regarding authenticity/visibility/health of the bids submitted. This communication shall be with the prior approval of chairman T&E committee
<b>24. Preliminary Examination</b>	24.1	The Procuring agency 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
	24.3	The Procuring agency 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 agency will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the bidding 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 agency'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 agency and may not subsequently be made responsive by the Bidder by correction of the nonconformity. The bids upon preliminary examinations would be dropped from detailed evaluation by declaring them NON-RESPONSIVE in the first phase, if they lack any of primary/mandatory documents in their technical bid.
<b>25. Evaluation and Comparison of Bids</b>	25.1	The Procuring agency will evaluate and compare the bids which have been determined to be substantially responsive, pursuant to ITB Clause 24.
	25.2	The Procuring agency'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 agency'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:  a. Incidental costs b. Delivery schedule offered in the bid; c. Deviations in payment schedule from that specified in the Special Conditions of Contract; d. The cost of components, mandatory spare parts, and service; e. The availability Procuring agency of spare parts and after - sales services for the equipment offered in the bid; f. The projected operating and maintenance costs during the life of the equipment; the performance and productivity of the equipment offered; and/or g. Other specific criteria indicated in the Bid Data Sheet and/or h. In the Technical Specifications.
	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:  a. Incidental costs provided by the bidder will be added by Procuring agency to the delivered duty paid (DDP) price at the final destination
		b. Delivery schedule. (i) The Procuring agency 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 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 OR

		(ii) The goods covered under this invitation are 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. OR	
		(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>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 Sheet and/or in the Technical Specifications.</p>	
<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 & 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 agency on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Procuring agency, it should do so in writing.	



	26.2	Any effort by a Bidder to influence the Procuring agency 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 agency 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 agency 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 agency will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the Highest Ranking fair bid/ Best evaluated bid under Section 2 (c)(i) of the KPPRA Act 2012, 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 agency 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 agency reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Procuring agency's action.
<b>31. Notification of Award</b>	31.1	Prior to the expiration of the period of bid validity, the Procuring agency 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 agency 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 agency notifies the successful Bidder that its bid has been accepted, the Procuring agency will send the Bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties.
	32.2	Within twenty (20) days of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the Procuring agency.

<b>33 Performance Security</b>	33.1	Within ten (10) days of the receipt of notification of award from the Procuring agency, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the bidding documents, or in another form acceptable to the Procuring agency.
	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 agency 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 agency'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 KPPRA Act, 2012 and Rules made there under:</p> <p>a. Defines, for the purposes of this provision, the terms set forth below as follows:</p> <p>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</p> <p>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 Procuring agency, 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 agency 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 forfeit the bid security for that particular bid/proposal in due course if the bidder could not establish his plea for not being involved in the corrupt or fraudulent practices</p> <p>d. 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.
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## **Part One - Section II.**

### **General Conditions of Contract**

#### **Notes on the General Conditions of Contract (GCC)**

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.

The General Conditions of Contract herein shall not be altered. Any changes and complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract in Part Two Section III.

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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 agency 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 agency 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 agency” means the organization purchasing the Goods, as named in SCC.</li> <li>h. “The Procuring agency’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 Information; Inspection and Audit by the Government</b>	5.1	The Supplier shall not, without the Procuring agency's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Procuring agency in connection 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 agency'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 agency and shall be returned (all copies) to the Procuring agency on completion of the Supplier's performance under the Contract if so required by the Procuring agency.
	5.4	The Supplier shall permit the Procuring agency 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 agency, if so required.
<b>6. Patent Rights</b>	6.1	The Supplier shall indemnify the Procuring agency against all third - party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in the Procuring agency's country.
<b>7. Performance Security</b>	7.1	Within ten (10) days of receipt of the notification of Contract award, the successful Bidder shall furnish to the Procuring agency the performance security in the amount specified in SCC.
	7.2	The proceeds of the performance security shall be payable to the Procuring agency 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 agency and shall be in one of the following forms:

		<p>a. A bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the Procuring agency's country, in the form provided in the bidding documents or another form acceptable to the Procuring agency; or</p> <p>b. A cashier's check or certified check.</p>
	7.4	The performance security will be discharged by the Procuring agency 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 agency 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 agency. SCC and the Technical Specifications shall specify what inspections and tests the Procuring agency requires and where they are to be conducted. The Procuring agency 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 agency.
	8.3	Should any inspected or tested Goods fail to conform to the Specifications, the Procuring agency 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 agency.
	8.4	The Procuring agency's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival in the Procuring agency'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 agency 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 agency.
<b>10. Delivery and Documents</b>	10.1	The Supplier in accordance with the terms specified in the Schedule of Requirements shall make delivery of the Goods. 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 seller's 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 agency's country, transport to such place of destination in the Procuring agency'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	<p>The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:</p> <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 agency's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.</li> </ul>
	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	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>a. Such spare parts as the Procuring agency may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and</p> <p>b. In the event of termination of production of the spare parts:</p> <p>i. Advance notification to the Procuring agency of the pending termination, in sufficient time to permit the Procuring agency to procure needed requirements;</p> <p>ii. Following such termination, furnishing at no cost to the Procuring agency, the blueprints, drawings, and specifications of the spare parts, if requested.</p>
<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 agency'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 agency 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 agency.
	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 agency 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 agency 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 agency 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 agency, 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 agency's request for bid validity extension, as the case may be.
<b>18. Change Orders</b>	18.1	<p>The Procuring agency 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:</p> <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 agency;</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 agency'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. However the covenants of the contract shall be qualified in SCC relating to the issues arriving out in contract Administration phase in line with GCC at the time of award of contract
<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 agency's prior written consent.
<b>21. Subcontracts</b>	21.1	The Supplier shall notify the Procuring agency 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 agency 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 agency in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of

		Supplier's notice, the Procuring agency 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 agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in 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 agency may consider termination of the Contract pursuant to GCC Clause 24.
<b>24. Termination for Default</b>	24.1	<p>The Procuring agency, 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> <p>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 agency pursuant to GCC Clause 22; or</p> <p>b. If the Supplier fails to perform any other obligation(s) under the Contract.</p> <p>c. if the Supplier, in the judgment of the Procuring agency has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.</p> <p>For the purpose of this clause:</p> <p>"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.</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 agency 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

		<p>Liable to the Procuring agency for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.</p>
<b>25. Force Majeure</b>	25.1	<p>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.</p>
	25.2	<p>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 agency in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.</p>
	25.3	<p>If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring agency in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring agency 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.</p>
<b>26. Termination for Insolvency</b>	26.1	<p>The Procuring agency 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 agency.</p>
<b>27. Termination For Convenience</b>	27.1	<p>The Procuring agency, 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 be for the Procuring agency’s convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.</p>
	27.2	<p>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 agency at the Contract terms and prices. For the remaining Goods, the Procuring agency may elect:</p> <ul style="list-style-type: none"> <li>to have any portion completed and delivered at the Contract terms and prices; and/or</li> <li>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	<p>The Procuring agency 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.</p>

	28.2	If, after thirty (30) days from the commencement of such informal negotiations, the Procuring agency 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 agency'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 agency.



**Government of Khyber Pakhtunkhwa**

**Health Department**

**Procurement Cell (DGHS)**

## **Standard Bidding Documents**

**For National Competitive Bidding  
Pakistan**

**For  
SELECTION & RATE CONTRACTING FOR MACHINERY &  
EQUIPMENT, GENERATORS, AMBULANCES WITH  
AMBULATORY ITEMS, MEDICAL WASTE TREATMENT,  
INSTRUMENTS & OTHER HOSPITAL SUPPLIES ETC  
FOR THE YEAR  
2017-18**

### **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

### **NOTE**

The forms provided in Section VI should be completed by the Bidder or the Supplier; the footnotes in these forms should remain, since they contain instructions, which the Bidder or the Supplier should follow.



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**Part Two**  
**Section I. Invitation for Bids**

Notes on the Invitation for Bids

The Invitation for Bids (IFB) has been issued as an advertisement in leading newspapers of general circulation in the Province of Khyber Pakhtunkhwa as well as on the web site of the Health Department ([www.healthkp@gov.pk](mailto:www.healthkp@gov.pk)) by allowing at least fifteen days for NCB for bid preparation and submission.

The Invitation for Bids provides information that enables interested bidders to decide whether to participate. Apart from the essential items listed in the Standard Bidding Documents (SBD), the Invitation for Bids also indicates the important bid evaluation criteria or qualification requirement (for example, a requirement for a minimum level of experience in manufacturing a similar type of goods for which the Invitation for Bids is issued) so that the bidders should give their best and final prices as no negotiations are allowed.

The Invitation for Bids is incorporated into these Standard Bidding Documents (SBDs). The information contained in the Invitation for Bids (IFB) conforms to the bidding documents and in particular to the relevant information in the Bid Data Sheet.

## **Invitation For Bids**

**Directorate General Health Services Khyber  
Pakhtunkhwa, Peshawar Procurement Cell**

### **SELECTION & RATE CONTRACTING FOR MACHINERY & EQUIPMENT, GENERATORS, AMBULANCES WITH AMBULATORY ITEMS, MEDICAL WASTE TREATMENT, INSTRUMENTS & OTHER HOSPITAL SUPPLIES ETC FOR THE YEAR 2017-18**

1. The Procurement Cell, Directorate General Health Services, Khyber Pakhtunkhwa Peshawar invites sealed bids under National Competitive Bidding from Manufacturers & Importers of Machinery, Equipment, Generators, Ambulances with Ambulatory items, Instruments, and other Hospital supplies etc. to Select & Rate Contract the same for procurement by various Procuring Entities of Health Department, Government of Khyber Pakhtunkhwa during the financial year 2017-18
2. Bidding shall be conducted through Single Stage –Two Envelopes Bidding Procedure comprising a single package containing two envelopes as per KPPRA Rules-2014. Each envelope shall contain separately Technical and financial bid clearly marked in bold & legible letters. The firms are bound to provide complete information of the bidder along with its postal as well as valid email address and phone number/s on each of the respective envelope.
3. Interested Manufacturers & Importers must obtain Application Form along with complete set of bidding documents from the Procurement cell at the Directorate General Health Services, Khyber Road Peshawar during office hours on any working day till 5<sup>th</sup> May 2017, against the non-refundable cash payment of Pak Rupees Two thousand per application form. Original Receipt of the paid amount must be attached to the Technical Bid inside its sealed envelope. The Bidding Documents can also be downloaded from the following official website. [www.healthkp.gov.pk](http://www.healthkp.gov.pk)
4. A pre-bid meeting with the interested bidders category wise on specified dates in bid data sheet in the Conference Room of this Directorate.
5. Interested Bidders must submit sealed bids to the Procurement Cell at the Directorate General Health Services, Khyber Road Peshawar on or before 10:00 hours, Thursday, 05, 2017, which will be opened on the same day at 10:30 AM in the presence of those bidders or their representatives, who choose to attend the process. Bid submitted after 10:00 AM shall not be entertained.
6. Financial bid must be accompanied with Bid Security as per details given in bid data sheet and the same shall be in the shape of Pay Order (PO) / Demand Draft (DD) / Call Deposit Receipt (CDR) / Bankers Cheque in the name of the undersigned. Ordinary cheque in the firm of bid security will result in bid rejection summarily.
7. Technical bid must be accompanied with a photocopy of this bid security failing which the technical bid will be considered non-responsive.
8. Bid must be computer typed & printed; and the offered bid price must be written both in words & figures. An authorized person of the bidder/firm shall sign & stamp all pages of the bid. The same shall also contain product details in the form of original catalogue/Brochures.
9. All bidders are also required to submit the relevant detail of technical proposal and required documents in soft copies on Computer CD/DVD, duly labeled by a permanent marker with the name of bidder/ firm.
10. Bidders are required to offer most competitive lowest rate of their items, as negotiations on quoted rates are not allowed under the rules.
11. The undersigned reserves the right to reject any or all the bids as per provisions contained in Rule 47 of KPPRA Procurement Rules 2014.

Director General Health Services  
Khyber Pakhtunkhwa Peshawar  
Tel No: 091- 9210269  
Fax No: 091- 9210230  
Procurement Cell  
Tel No: 091-9210196

## **Section II. Bid Data Sheet**

### **BID DATA SHEET**

<b>ITB Ref.</b>	<b>Introduction/Description</b>	<b>Detail</b>
<b>ITB 1.1</b>	Name of Procuring Agency of Government Of Khyber Pakhtunkhwa.	Procurement Cell, DGHS Peshawar Health Department Government of Khyber Pakhtunkhwa
<b>ITB 1.1</b>	Loan or credit or Project allocation Number. Loan or credit or Project allocation amount.	Budget allocated or any other Source through which amount is allocated for Health department for the year 2017-18
<b>ITB 1.1</b>	Name of Project	Selection & Rate Contracting under district Govt. Rules of Business 2015.
<b>ITB 1.1</b>	Name of Contract	S&RCC
<b>ITB 4.1</b>	Name of Procuring agency.	Procurement Cell, DGHS Peshawar Health Department Government of Khyber Pakhtunkhwa
<b>ITB 6.1</b>	Procuring agency's address, telephone, Telex, and facsimile, numbers.	Director General Health Services Khyber Pakhtunkhwa Peshawar Tel No: 091- 9210269 Fax No: 091- 9210230 Procurement Cell Office Tel No: 091-9210196 Email: pcdghs@gmail.com
<b>ITB 8.1</b>	Language of the bid.	English
<b>Bid Price and Currency</b>		
<b>ITB 11.2</b>	Price quoted shall be:	Pakistan Rupees (Rs.)
<b>ITB 11.5</b>	The price shall be fixed	The price will be fixed till 30th June 2018
<b>Preparation and Submission of Bids</b>		
<b>ITB 13.3 (d)</b>	Qualification requirements.	1) Manufacturer/ Importer for category A,B & C specified in SOR. 2) Manufacturer/Importer/ Authorized agents for category D. 3) Manufacturer/OEM certified fabricators/Authorized Agents for Category E 4) Manufacturer/Importer for Category F.
<b>ITB 14.3 (b)</b>	Spare parts required for period of years of Operation	i) Three Years free of cost under warranty ii) Ten Years parts easy availability in market
<b>ITB 15.1</b>	Amount of bid security.	i) Bid shall be @ 2% of bid value for Category-A,B,C,E & F ii) Rs. Five Lac (Rs.500, 000/-PKR) for Category D, as elaborated in Section-IV, Statement of Requirement.
<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.	One (original bid)
<b>ITB 18.2 (a)</b>	Address for bid submission.	Procurement Cell Directorate General Health Services, Khyber Road, Peshawar

<b>ITB 18.2 (b)</b>	IFB title and number.	Procurement of Machinery & Equipment, Ambulances with Ambulatory items, Instruments and other Hospital supplies etc. for the year 2017-18
<b>ITB 19.1</b>	Deadline for bid submission.	10:00 AM Sharp. May 05, 2017
<b>ITB 19.3</b>	Pre-Bid meeting with the bidders	1) For Medical Equip, Anesthesia Equip, OT Equip & Autoclave: 24 <sup>th</sup> April 2) Lab Equip, Radiology, ENT, Orthopedics & Neonatal: 25 <sup>th</sup> April 3) Endoscopy, ophthalmology, Dental Equip, Generators, Ambulance & Medical waste Treatment Unit: 26 <sup>th</sup> April
<b>ITB 22.1</b>	Time, Date, and Place for bid opening.	10:30 hours, 5 <sup>th</sup> May, 2017 Conference Room, Directorate General Health Services, Khyber Road, Peshawar

<b>Bid Evaluation</b>		
<b>ITB 25.3</b>	Criteria for bid evaluation.	Merit Point Evaluation The items ranked highest in merit points (obtained through and based on technical and financial evaluation) will get unit rate central contract.
<b>ITB 25.4 (a)</b> <b>ITB 25.4 (b)</b>	One option only Delivery schedule. Relevant parameters in accordance with option selected.	Not Applicable
<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)(ii)</b>	Deviation in payment schedule. Annual interest rate.	Not Applicable
<b>ITB 25.4 (d)</b>	Cost of spare parts.	Not Applicable
<b>ITB 25.4 (e)</b>	Spare parts and after sales service facilities in the Procuring agency's Country.	Not Applicable
<b>ITB 25.4 (f)</b>	Operating and maintenance costs.	Not Applicable
<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	As in section on Technical Evaluation of bids.
<b>ITB 25.4 alternative</b>	Specify the evaluation factors.	Not Applicable
<b>ITB 28.1</b>	Award Criteria	Section 2 (c)(i)
<b>Contract Award</b>		
<b>ITB 29.1</b>	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**

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## **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.

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

GCC 1.1 (c) The Goods are: Machinery & Equipment, Ambulances with Ambulatory items, Instruments and other Hospital Supplies etc.

GCC 1.1 (g) **The Procuring Agency is:** Procurement Cell, Directorate General Health Services, Health Department, Government of Khyber Pakhtunkhwa, Peshawar; and

**The Purchasing Agency/is /are:** District Health Officers, Medical Superintendents, Hospital Directors, and other Heads of the Primary, Secondary and / or Tertiary Level Health Care Institutions of the Health Department, Government of Khyber Pakhtunkhwa.

GCC 1.1 (i) The Supplier is: i) Manufacturer and/or Importer registered with relevant sales and income tax authorities and have requisite qualification and eligibility for supply of Goods in the specialized categories of health sector; and

ii) Manufacture of Medical Equipment/ Machinery, Instruments & Medical Devices in Pakistan; and

iii) Importer of Medical Equipment/ Machinery, Instruments & Medical Devices in Pakistan.

iv). Manufacturer / Authorized fabricator of the Manufacturer/OEM certified fabricator from PEC in relevant category

### **2. Sample Provision:**

**GCC 1.1 (j)—The Project Site is: Office of Procurement Cell, Directorate General Health Services, Khyber Road, Peshawar**

When required, the Focal Person of the bidder will be informed on phone or through email to provide samples of the items in sufficient / required quantity for examination / analysis to the office of Procurement Cell, DGHS at bidder's own risk and cost at the time and date communicated. The samples will be non-returnable and no payment shall be made to bidder / Focal Person on this account.

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

All countries and territories as indicated in Part Two Section.VI of the bidding documents Eligibility for the Provisions of Goods, Works, and Services in Government-Financed Procurement. This is to qualify that the bidder will have to provide the details regarding country of origin, Make & manufacturer, current model or previously supplied/manufactured model along with details of Manufacturing Units and mode of supply, shipment and any other associated details of the component items of the quoted equipment.

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

**GCC 7.1**—The amount of performance security, as a percentage of the Contract Price, shall be 10% i.e. (8+2) of the total value of each individual supply order placed to the successful bidder.

However, the bid security @ 2% of bid value or at flat rate of Rs. Five Lac (Rs. 500,000/-), 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 Procuring Agency as Performance Security till the end of contract period and will be released back to successful bidders after successful completion of all the contract obligations.

### **5. Standards (GCC Clause 4):** As mentioned in GCC clause 4.1.

**6. Inspections and Tests (GCC Clause 8 and in accordance with the clauses of contract with the Procuring Agency)**

- i. The Technical Evaluation shall be conducted by the Technical and Evaluation (T&E) 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/relevant premises 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 and / or the S&RCC of the Government for submission of technical report to the relevant forum for the needful.
- 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.
- iv. Any other appropriate method may be adopted by the T&E Committee, and / or S&RCC to assess and/or assure the quality of goods being purchased

**7. Packing (GCC Clause 9)**

In accordance with the GCC Clause 9 as well as provided in the relevant clauses of Contract agreement of DGHS with the Supplier/s (Section-VI of these SBDs –Rate Contract Agreement).

**8. Delivery and Documents (GCC Clause 10)**

Applicable Delivery Mode: Delivered Duty Paid (DDP) as per contract agreement of the Successful with the Procuring Agency

**9. Warranty (GCC Clause 15)**

The Supplier shall provide warranty as per the terms and conditions of the Rate Contract Agreement with Procuring Agency

GCC 15.2—In partial modification of the provisions, the warranty period shall be as per contract terms and 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 agency 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 free warranty period is three years after installation with free parts and free services, including all incidental charges, and for the next two years for free services only without parts but with all incidental charges related to services provision on the site of installation

**GCC 10.3**—Upon shipment, the Supplier shall notify the Procuring agency 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 agency:

- 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.



**10. Payment (GCC Clause 16):**

GCC Clause 16 as well as under the terms and condition in Rate Contract Agreement with the Procuring Agency, the goods supplied under the Contract shall be delivered duty paid (DDP) 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

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

i) The bidder shall not quote price of any item/s which is/are higher than the prices quoted by the bidder across the country to any procuring entity of the quoted item/s through public funding.

ii) In case the bid price is higher on estimated cost, the Procuring agency has the right to reject the bid and scrap the process without any liability.

iii) In case of single bid after technical evaluation, the procuring agency will carry out the market analysis before issuing a letter of consent to the successful bidder.

**13. Liquidate d Damage s (GCC Clause 23)**

As in relevant clauses of the Rate Contract Agreement signed by the Supplier with the Procuring Agency.

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

The dispute resolution mechanism to be applied will be pursuant to relevant clauses of Rate Contract Agreement signed by Supplier with the Procuring Agency.

If at all required, the jurisdiction of Court shall be of Peshawar, Khyber Pakhtunkhwa.

**15. Bid Tie.**

In case of tie in the final score of two bidders, and unless otherwise not in contradiction to any of the terms & conditions and specifications of that item, the rate contracting will be offered to the bidder having higher score in its technical bid and the same will be declared as highest fair bid (successful bidder).

**16. Governing Language (GCC Clause 29)**

The Governing Language shall be: **English**

**17. Applicable Law (GCC Clause 30)**

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

i. The KPPRA Act 2012

ii. The KPPRA Rules 2014

iii. The Contract Laws

iv. 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 Bonded Labor System (Abolition) Act of 1992

vii. The Factories Act 1934

**18. Notices (GCC Clause 31)**

GCC 31.1—Procuring Agency address for notice purposes: **Office of Director Procurement Cell (PC)**, Directorate General Health Services, Khyber Pakhtunkhwa, Khyber Road, Peshawar.

Tel: 091-9210196, Fax:091-9210230, Email: pcdghs@gmail.com

Supplier r's address for notice purposes: As mentioned in their bidding documents

**19. Duties & Taxes (GCC clause 32)**

The Unit price quoted by the bidder shall be: **inclusive** of all duties and taxes. all prices shall include relevant taxes & duties, where applicable. If there is no mention of taxes, the offered/ quoted price shall be considered as inclusive of all prevailing taxes/duties. The benefit of exemption from or reduction in the GST or other taxes shall be passed on to the Procuring Agency.

**20. Legal Documentary Proof**

The bidder must possess valid legal enforceable exclusive authorization from the Foreign/Local Manufacturer; they should have a documentary proof to the effect that they are the original Manufacturer of the required goods.

**21. 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.

**22. Letter of Authorization**

The Authorized agent shall have to produce Exclusive letter of authorization / Sole Agency Certificate from Manufacturer and in case of Manufacturer, documentary proof to the effect that they are the original Manufacturer of the required goods shall be provided, or joint venture/ consortium/ alliance of the local Sole agents/manufacturers.

**23. Technical Staff and Tools**

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

**24. Minor Deviation**

The Procuring Agency may waive 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.

**25. Deviation from critical Provision**

Deviations from, or objections or reservations to critical provisions shall be deemed to be a material deviation for technical proposals and thus the bid will be declared as Non-responsive.

**26. 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.

**27. OEM**

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

**28. After Sale Service**

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

**29. 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 bid including its model number and serial numbers. The available testing equipment must be calibrated.

**30. 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 the Premises**

The Procuring Agency has the right to inspect the premises of bidder to inspect the setups ensuring proper after sales service

**32. Opening of the Financial Proposals**

After technical evaluation is completed, the Procuring Agency 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 bid shall stand rejected. All items described in the technical proposal must be priced in financial proposal. Items described in the technical proposal but not priced, shall be assumed to be included in the price of other items. No conditional bid in term of financial bid will be entertained and the bidder will straight away be disqualified

**34. Bidders Influence**

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

**35. Quantity Variation**

The Procuring Agency reserves the right 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

## **Section IV. Schedule of Requirements**

### **Instructions relating to Category A, B, C, E & F items:**

- As detailed elsewhere in this document, 02% bid security for the above mentioned categories shall be submitted by each bidder on the total quantity of items for which bid is being submitted.
- Any two of the following three product / item specific valid international certifications shall be mandatory for the items enlisted/included in category-A, whereas the certificates are given due weightages in the respective evaluation criteria, to qualify for bidding competition:  
US FDA  
JIS  
CE (MDD)
- It is further clarified that the bid not possessing any two of the above mentioned certificates for category-A shall be dis-qualified for this bidding competition.
- The mode of provision of bid security shall be in accordance with the modalities as laid down in the relevant KPPRA Rules and these Revised Standard Bidding Documents.
- In case of imported items, the quoted items should be registered for use in their country of origin, for which the Importers should provide valid cGMP Certificate for their quoted products duly attested by the embassy of the country of origin in Pakistan or the embassy of Pakistan in the country of origin of the quoted items.
- Valid cGMP and product authorization certificate (attested from the embassy of the country of origin in Pakistan or Pakistani embassy in the country of origin). Non-provision of the embassy attested certificate would lead to disqualification of firm.
- All ISO certifications shall be accredited and validated by PNAC (Pakistan National Accreditation Council). T&E committee will carry out the verifications before award of contract and in case of any fraudulent practice; legal action will be taken against the bidder concerned.
- Non-Provision of these mandatory documents shall lead to disqualification of the quoted items
- The bidding is carried out for Rate Contract and hence the quantity mentioned against each of the following items is an estimated one and may be increased as per requirement / decision of the procuring entity and in this connection no claim shall be entertained.
- The Procuring Agency, 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 schedule for supply of goods shall be as under:
  - Within 90 days from the date of issuance of supply order by the Purchasing Agency for items to be imported.
  - Within 60 days from the date of issuance of supply order by the Purchasing Agency for items to be locally manufactured.

### **Instructions relating to Category-D items:**

- For all other items enlisted/included in category-D, a standard bid security at a flat rate of (Rs. 500,000/- (Five hundred thousand) shall be required, inter alia, for each bid to be responsive
- The bidding is carried out for Rate Contract and hence the quantity mentioned against each of the following items is an estimated one and may be increased as per requirement / decision of the procuring entity and in this connection no claim shall be entertained.

S.No	Nomenclature (Specifications are given at SOR Section IV)	Category
1	ICU Central Station with Cardiac Monitors for 8/10/12 Beds	A
2	Echo Machine	A
3	ICU Ventilator	A
4	Transport Ventilator	A
5	ETT	A
6	Autoclave Automatic 100 liters.	A
7	Autoclave Automatic 150 liters.	A
8	Autoclave Automatic 200 liters.	A
9	Autoclave Horizontal/Vertical type (100 liters)	A
10	Autoclave Horizontal/Vertical type (150 liters)	A
11	Autoclave Horizontal/Vertical type (200 liters)	A
12	Bronchoscope full set with all accessories.	A
13	Cystoscope with Light Source complete	A
14	Endoscope Gastro duodenal	A
15	Laparoscope Machine for Gynea/OBS	A
16	Naso-pharyngoscope with Suction & Forceps	A
17	Esophagoscopes with instrument set.	A
18	Bronchoscope rigid	A
19	Sinus endoscopy set with proof puncture needles.	A
20	Sigmoido scope with Universal Lighting.	A
21	Blood gas Analyzer.	A
22	Fully Automated Chemistry Analyzer.	A
23	Chemistry Analyzer.	A
24	Elisa machine with washer.	A
25	Hematology Analyzer.	A
26	Arterial Blood Gas Analyzer.	A
27	X-ray plants 1000mA AC and battery operated in built or external AVR provided by the manufacturer.	A
28	X-ray plants 500mA AC and battery operated in built or external AVR provided by the manufacturer.	A
29	X-ray plants 300mA AC and battery operated in built or external AVR provided by the manufacturer.	A
30	Mobile X-ray plant 300mA AC & battery operated.	A
31	CR-system (computerized radiography system).	A
32	DR System for existing X-ray Machine	A
33	Ultrasound Machine (general purpose) with multiple probes and thermal printer.	A
34	ENT Examination chair	A
35	ENT Examination unit with Cautery suction.	A
36	Direct micro laryngoscope	A
37	C- Arm (Image Intensifier)	A
38	B.Scan.	A
39	Phaco emulsification Machine having facility of interior vitrectomy and wet bipolar cautery.	A
40	Auto Refractor with karactometer.	A
41	Operating Microscope.	A
42	Slit lamp	A
43	Cardiac Monitor for DHQ level hospital.	B
44	Cardiac Monitor for category C and low level hospitals.	B
45	Defibrillator	B
46	ECG Machine 12 channels (for DHQ level hospitals).	B
47	ECG Machine 3 channels (for category C and low level hospitals).	B
48	Infusion Pump.	B
49	Pulse Oximeter.	B
50	Humidifier.	B

51	Ripple Mattress	B
52	24 hour BP monitory machine	B
53	Nebulizer.	B
54	Oxygen Concentrator	B
55	Air Purification System	B
56	Electric Surgical unit diathermy.	B
57	Emergency Light with single reflector AC/DC or examination light AC/DC.	B
58	Hydraulic Operation Table.	B
59	Portable lamps AC/DC or emergency light AC/DC.	B
60	Resuscitation Trolley.	B
61	Shadow less lamp/ceiling type or ceiling OT light for minor OT or ceiling OT light for post-mortem.	B
62	Suction Machine Heavy Duty.	B
63	Automated Electrolyte Machine.	B
64	Automated ESR System.	B
65	Manual ESR System.	B
66	Blood Screening Counter.	B
67	Centrifuge (bench top) for DHQ level hospital.	B
68	Laboratory centrifuge for category C or level hospitals.	B
69	Deionizer.	B
70	Laboratory Incubator.	B
71	PH Meter.	B
72	Spectrophotometer.	B
73	SS Filtration Assembly.	B
74	Urine Meter.	B
75	Vortex Mixer.	B
76	Binocular Microscope.	B
77	Blood bank Refrigerator.	B
78	Dry Heat Sterilizer/Hot Air Oven.	B
79	Automated Blood Shaker.	B
80	Water Bath.	B
81	Automatic Film Processor	B
82	Pure Tone Audiometer	B
83	Head Light with Cool Illumination.	B
84	Air Drill with Cylinder/Orthopedic Pneumatic Drill with Cylinder.	B
85	Fracture Operation Table with Ortho Traction Attachment.	B
86	Spica Table.	B
87	Baby Incubator.	B
88	Phototherapy Unit.	B
89	Infant Warmers (Radiant Warmer)	B
90	Baby Suction Machine	B
91	Electric Amalgamator.	B
92	Electric Cautery(dental)	B
93	Dental Unit with chair.	B
94	Dental X-ray unit.	B
95	Mini Autoclave Automatic.	B
96	CTG Machine.	B
97	Sonic Aid Machine/ Fetus Heart Detector	B
98	Gynae Vacuum Suction apparatus/ vacuum extractor with accessories.	B
99	D & C Table/ Delivery Table.	B
100	Bed side steel stairs	C
101	Bed with side Table and over bed trolley.	C
102	Bed side table.	C
103	Beds with side table & over bed trolley for recovery room.	C
104	Drip stand	C
105	Couch for Ultrasound / Examination couch	C
106	Gynae examination couch	C
107	Instrument trolley.	C

108	Patient Trolley.	C
109	Railing for beds	C
110	Wheel Chair	C
111	Orthopedic Traction Bed	C
112	Dissection Table	C
113	Dressing Trolley	C
114	Eclampsia Bed	C
115	Steel Almirah for medicines	C
116	OPD chairs S.S	C
117	Revolving steel stool	C
118	Surgeon revolving steel stool	C
119	Screen	C
120	Steel file racks	C
121	Dry Clean Trolley	C
122	Baby Cots	C
123	All Surgical instruments and instrument set	D
124	Adult weighing scale	D
125	Proctoscope for adult and child.	D
126	Baby weighing scale	D
127	BP apparatus with stand	D
128	BP apparatus with pediatrics cuffs.	D
129	BP mercury desktop.	D
130	BP Set Wall Mounted	D
131	Diagnostic Set Paeds	D
132	Ear Syringe	D
133	ENT Diagnostic Set (adult)	D
134	Glucometer	D
135	Otoscope Rechargeable	D
136	Peak Flow Meter	D
137	Stethoscope	D
138	Stethoscope Nursery	D
139	Ambo bag Paeds	D
140	Ambo bag Adult	D
141	Manual Suction apparatus for ICU	D
142	Baby Resuscitation Apparatus	D
143	Vision testing drum	D
144	Lens Set (Plus 78D)	D
145	Binocular Magnifier	D
146	Ophthalmoscope	D
147	Ophthalmoscope + Retinoscope Rechargeable	D
148	Measuring stand for infant	D
149	Baby Anesthesia Set	D
150	Bain Circuit	D
151	Endo Tracheal Tube	D
152	Face mask	D
153	Laryngeal Face mask	D
154	Airways	D
155	Pediatric circuit	D
156	Randall Baker face mask	D
157	Sam Circuit	D
158	Stylets Adult	D
159	Stylets Paeds	D
160	Oxygen, Nitrous Oxide CO2 and Air 240 Cft Cylinder with Trolley	D
161	Oxygen, Nitrous Oxide CO2 and Air 48 Cft Cylinder with Trolley	D
162	Oxygen Cylinder Key	D
163	Oxygen flow Meter	D
164	Oxygen Gauge	D

165	Automatic pipette (Full Set)	D
166	Blood grouping viewing box	D
167	Bone Marrow needles (Adults)	D
168	Bone Marrow needles (Pediatrics)	D
169	Centrifuge Tubes (Glass)	D
170	Centrifuge Tubes (Plastic)	D
171	Containers for sputum	D
172	Containers for Urine	D
173	Cover Slip	D
174	ESR Pipettes	D
175	DLC Counter	D
176	ESR Rack	D
177	ESR stand for five Tube	D
178	FSP Pipette	D
179	Glass pipettes (different sizes)	D
180	Lancets	D
181	Glass Wares	D
182	Jester pipettes (adjustable	D
183	Jester pipettes(Fixed)	D
184	Jesters	D
185	Glass Slide	D
186	Micropipette Digital Different size	D
187	Pipette assorted sizes	D
188	Pipette stands	D
189	Reagent Bottles	D
190	Sahli Hemoglobin meter	D
191	Test Tube holder	D
192	Test Tube Racks Stainless Steel	D
193	Test Tubes	D
194	Test Tubes Racks wooden	D
195	Tube Sealer	D
196	Wire Loops	D
197	Trephine biopsy needle	D
198	Wooden Boxes	D
199	Analytical Balance /Electric balance	D
200	Haemo cytometer	D
201	Electronic Balance	D
202	Jester 1 ml	D
203	Jester (10 to 50 ul)	D
204	Jester (10 to 100 ul)	D
205	Jester (10 to 200 ul)	D
206	Jester Fix 10ul	D
207	X-Ray Viewing Box	D
208	X-Ray Cassette 12 x 15 with Green screen	D
209	X-Ray Cassette 10 x 12 with Green screen.	D
210	X-Ray Cassette 8 x 10 with Green screen.	D
211	X-Ray Cassette 12 x 15 with blue screen	D
212	X-Ray Cassette 10 x 12 with blue screen	D
213	X-Ray Cassette 10 x 10 with blue screen	D
214	Hangers Various Size	D
215	Safe Light for Dark Room	D
216	Lead Apron	D
217	Lead Gloves	D
218	Lead Glass Shield	D
219	Immersion Rod	D
220	Plastic Apron	D
221	Clamps	D



222	Wet Film Stand	D
223	Manual Film Processor	D
224	X-Ray Viewer	D
225	Plaster Cutting Electric Saw	D
226	Indirect Ophthalmoscope	D
227	Refraction Box	D
228	Mattress Foam with Raxine Cover	D
229	Blanket	D
230	Bed Sheet	D
231	Pillow with cover	D
232	OT Gown	D
233	OT Caps	D
234	OT Sheet	D
235	OT Shoes	D
236	Table Cover small	D
237	Table Cover large	D
238	AC 1.5 tones Split unit inverter type with 10 KVA stabilizer (copper winded)	D
239	AC 1.5 tones Split unit with 10 KVA stabilizer (copper winded)	D
240	AC 2 tones split unit inverter type with 10 KVA stabilizer (copper winded)	D
241	AC 2 tones split unit with 10 KVA stabilizer (copper winded)	D
242	AC Split 01 Ton split unit inverter type with 10 KVA stabilizer (copper winded)	D
243	Deep Freezer	D
244	AC Split 01 Ton split unit with 10 KVA stabilizer (copper winded)	D
245	Geyser 250 Litter	D
246	OT Shoes	D
247	Refrigerator 14Cft	D
248	Refrigerator 12 CFT	D
249	Refrigerator 18 CFT	D
250	Electric Water Cooler	D
251	Cupboard Steel Large	D
252	File Cabinets Steel	D
253	Steel File rack	D
254	Steel Rack for medicine	D
255	UPS 4000 watts with battery	D
256	Ambulances	E
257	Generators (Diesel)	F

**Category: Medical Equipment**

S#	Nomenclature	Specification	Qty
1	ICU Central Station with cardiac monitors for 8/10/12 beds	<p><b><u>CENTRAL MONITOR FOR A MINIMUM FOR 12 BEDSIDE MONITORS</u></b></p> <p>Central Station Monitor for use in intensive and coronary care units</p> <ul style="list-style-type: none"> <li>Unit shall be capable of monitoring a minimum of 8 beds and a maximum of 12beds.</li> <li>Shall provide a minimum of five 24 hour trends per monitor</li> <li>Shall allow instant alarm bed viewing</li> <li>The bed status shall always be displayed</li> <li>The user shall be able to easily configure the display</li> <li>Shall be capable of producing a shift report</li> <li><u>Shall be supplied with the following:-</u></li> <li>Hub Controller</li> <li>Hub – central Nurse Station interface</li> <li>Cabling</li> <li>Installation Kit</li> <li>8/10/12 Bed Installation Kit(according to the need of institution)</li> <li>Laser Printer Interface, Laser Printer (model must be mentioned)</li> </ul> <p><b>Central Monitor Size:</b> 24” or better or better</p> <ul style="list-style-type: none"> <li><b><u>All the parameters displayed on the monitors should also be displayed on the central station monitor and will be compatible with each other.</u></b></li> </ul> <p><b><u>Multi Parameter Patient Monitor</u></b></p> <ul style="list-style-type: none"> <li>(6ch ECG, SpO2, NIBP, IBP, TEMP, Resp.,ETCO2)</li> <li>Display for easy Viewing10.4” or better color TFT/LCD for easy set-up User selective up to 6 traces display.</li> <li><u>Advance for high-end-user</u></li> <li>ECG, SpO2, NIBP, 2-IBP, 2-TEMP, and Respiration</li> <li>EtCO2 (Side stream type with basic accessories)</li> <li>Full Arrhythmias analysis</li> <li>S-T segment</li> <li>Pacemaker detection.</li> <li>Save up to 30 Event management</li> </ul> <p>(15 sec Arrhythmia ECG wave recall)</p> <ul style="list-style-type: none"> <li>Fast set-uptime</li> <li>VGA signal output to external monitor</li> <li>IBP cable and sensor kit</li> <li>Oximeter available</li> <li>Up to 72 hours of graphic and tabular trend of all parameters,</li> <li><u>PERFORMANCE:</u></li> </ul> <p><b><u>Heart rate:</u></b> 30 ~ 300 bpm or better on either sides</p> <p><b><u>Respiration</u></b></p> <ul style="list-style-type: none"> <li>Respiration rate: 2~150bpm or better on either side.</li> <li><u>SPO2</u></li> <li>Range: 30 ~ 100% or better on either side</li> <li>Neonate and adult probe.</li> <li>Temperature range; 0 -50C(32 - 122F)</li> </ul> <p><b><u>GENERAL:</u></b></p> <ul style="list-style-type: none"> <li><u>Display:</u> 10.4” or better Color TFT/ LCD or better(with all parameters display)</li> <li><u>Alarm</u></li> <li>Alarm: All parameters on/off selective independently</li> <li>Power input 220Vac,50Hz</li> <li>With Battery backup.</li> <li>Backup time: Minimum 02 hours or better</li> </ul> <ul style="list-style-type: none"> <li><u>ACCESSORIES:</u></li> </ul>	

		<ul style="list-style-type: none"> <li>• ECG 5 Lead cable with disposable electrodes. 1</li> <li>• ECG 3Lead Extension cable minimum 3 meters. 1</li> <li>• Disposable Electrodes Adult, Neonate &amp; Paeds. 10each</li> <li>• SPO2 Finger sensor with fixed or detachable extension</li> <li>• Cable of minimum 3 meter length. 1</li> <li>• NIBP Reusable Neonate, Paeds &amp; Adult Cuff 1</li> <li>• NIBP Hose 1</li> <li>• AC power code 1</li> <li>• Ground cable 1</li> <li>• Operation Manual 1</li> <li>• ETCO2 (Side stream) with basic acc. 1</li> <li>• IBP Cable 1</li> <li>• Temperature sensor &amp; cable 1</li> </ul>	
2	Cardiac Monitor for DHQ level Hospital	<p><b><u>Multi Parameter Patient Monitor</u></b></p> <ul style="list-style-type: none"> <li>• (6ch ECG, SpO2, NIBP, IBP, TEMP, Resp.,ETCO2)</li> <li>• Display for easy Viewing10.4” or better color TFT/LCD for easy set-up User selective up to 6 traces display.</li> <li>• <u>Advance for high-end-user</u></li> <li>• ECG, SpO2, NIBP, 2-IBP, 2-TEMP, and Respiration</li> <li>• EtCO2 (Side stream type with basic accessories)</li> <li>• Full Arrhythmias analysis</li> <li>• S-Segment</li> <li>• Pacemaker detection</li> <li>• Save up to 30 Event management</li> <li>• (15 sec Arrhythmia ECG wave recall)</li> <li>• Fast set-up time</li> <li>• VGA signal output to external monitor</li> <li>• IBP cable and sensor kit</li> <li>• Oximeter available</li> <li>• Up to 72 hours of graphic and tabular trend of all parameters,</li> <li>• <u>PERFORMANCE:</u></li> <li>• <u>Heart rate:</u> 30 ~ 300 bpm or better on either sides</li> </ul> <p><u>Respiration</u></p> <ul style="list-style-type: none"> <li>• Respiration rate: 2~150bpm or better on either side.</li> <li>• <u>SPO2</u></li> <li>• Range: 30 ~ 100% or better on either side</li> <li>• Neonate and adult probe.</li> <li>• Temperature range; 0 -50C(32 - 122F)</li> <li>• <u>GENERAL:</u></li> <li>• <u>Display:</u> 10.4” or better Color TFT/ LCD or better(with all parameters display)</li> <li>• <u>Alarm</u></li> <li>• Alarm: All parameters on/off selective independently</li> <li>• Power input 220Vac,50Hz</li> <li>• With Battery backup.</li> <li>• Backup time: Minimum 02 hours or better</li> </ul> <p><u>ACCESSORIES:</u></p> <ul style="list-style-type: none"> <li>• ECG 5 Lead cable with disposable electrodes. 1</li> <li>• ECG 3 Lead Extension cable minimum 3 meters. 1</li> <li>• Disposable Electrodes Adult, Neonate &amp; Paeds. 10each</li> <li>• SPO2 Finger sensor with fixed or detachable extension</li> <li>• Cable of minimum 3 meter length. 1</li> <li>• NIBP Reusable Neonate, Paeds&amp; Adult Cuff 1</li> <li>• NIBP Hose 1</li> <li>• AC power code 1</li> <li>• Ground cable 1</li> <li>• Operation Manual 1</li> <li>• ETCO2 (Side stream) with basic acc. 1</li> <li>• IBP Cable 1</li> <li>• Temperature sensor &amp; cable 1</li> </ul>	
3	Cardiac Monitor for Category C & low level Hospitals	<p><b><u>Multi Parameter Patient Monitor</u></b></p> <ul style="list-style-type: none"> <li>• (6ch ECG, SpO2, NIBP, TEMP, Resp.)</li> <li>• Display for easy Viewing10.4” or better color TFT/LCD for easy set-up User selective up to 6 traces display.</li> </ul>	

		<p><u>Advance for high-end-user</u></p> <ul style="list-style-type: none"> <li>• ECG, SpO2, NIBP, 2-TEMP, and Respiration</li> <li>• Full Arrhythmias analysis</li> <li>• S-Tsegment</li> <li>• Pace maker detection</li> <li>• Save up to 30 Event management</li> <li>• (15 sec Arrhythmia ECG wave recall)</li> <li>• Fast set-uptime</li> <li>• VGA signal output to external monitor</li> <li>• Oximeter available</li> <li>• Up to 72 hours of graphic and tabular trend of all parameters,</li> </ul> <p><u>PERFORMANCE:</u></p> <ul style="list-style-type: none"> <li>• <b>Heart rate:</b> 30 ~ 300 bpm or better on either sides</li> </ul> <p><u>Respiration</u></p> <ul style="list-style-type: none"> <li>• Respiration rate: 2~150bpm or better on either side.</li> <li>• <u>SPO2</u></li> <li>• Range: 30 ~ 100% or better on either side</li> <li>• Neonate and adult probe.</li> <li>• Temperature range; 0 -50C(32 - 122F)</li> </ul> <p><u>GENERAL:</u></p> <ul style="list-style-type: none"> <li>• Display: 10.4" or better Color TFT/ LCD or better(with all parameters display)</li> <li>• Alarm: All parameters on/off selective independently</li> <li>• Power input 220Vac,50Hz</li> <li>• With Battery backup.</li> <li>• Backup time: Minimum 02 hours or better</li> </ul> <p><u>ACCESSORIES:</u></p> <ul style="list-style-type: none"> <li>• ECG 5 Lead cable with disposable electrodes. 1</li> <li>• ECG 3Lead Extension cable minimum 3 meters. 1</li> <li>• Disposable Electrodes Adult, Neonate &amp; Paeds. 10each</li> <li>• SPO2 Finger sensor with fixed or detachable extension</li> <li>• Cable of minimum 3 meter length. 1</li> <li>• NIBP Reusable Neonate, Paeds &amp; Adult Cuff 1</li> <li>• NIBP Hose 1</li> <li>• AC power code 1</li> <li>• Ground cable 1</li> <li>• Operation Manual 1</li> <li>• Temperature sensor &amp; cable 1</li> </ul>	
4	Echo Machine	<ul style="list-style-type: none"> <li>• Digital Echocardiography Machine</li> <li>• Fully Digital Beam Former Having 128 Physical Channels and 10,0000 Or More Processing Channels With Integrated Data Management System Having 250GB Hard Disk Drive for Still and Cine Clips Storage.</li> <li>• <u>Modes</u></li> <li>• 2D/M-Mode, Doppler, Pw, Cw &amp; Hprf Doppler, Color Flow Imaging</li> <li>• <u>System Capability</u> 2.5 – 14 MHz or More, M-Mode, Tissue Harmonic Imaging, Tissue Doppler Imaging With Pulse Wave TDI Doppler Spectrum.</li> <li>• <u>Viewing Depth:</u> 30cms or better.</li> <li>• <u>Frame Rate:</u> 1000 or better.</li> <li>• <u>Built-In Cine Loop:</u> 4000 Frames/256 MB Or better.</li> <li>• <u>Real Time Freeze &amp; Image Magnification Ability better than</u> 4x Pre &amp; Post Processing</li> <li>• Sweep Speed: Slow, Medium, Fast</li> <li>• 7" Or More Touch Command Screen for easy Operation of the System.</li> <li>• System Dynamic Range :30 to 212db or better</li> </ul> <p><u>Doppler Mode Specifications:</u></p> <ul style="list-style-type: none"> <li>• <u>Pulse Repetition Frequency Range:</u> PWD: 0.5 To 10Khz CWD: 1.6 To 50Khz</li> <li>• Highest Velocity Range; 130cm Or More</li> <li>• Lowest Detectable Velocity Range; 3.2 cm for better For Sector Probe and 0.5 for Linear Probe or better</li> <li>• <u>Maximum Detectable Velocity Range:</u> PWD= 20cm or better CWD= 21.5cm or better</li> <li>• Doppler Beam Steering</li> <li>• On Line 3-Ports for Trans-thoracic Probes.</li> <li>• Doppler Beam Steering and Bi-Directional Stereo Audio.</li> </ul>	

		<ul style="list-style-type: none"> <li>• Color Doppler</li> <li>• Both CW &amp; PW Doppler Must Be Continuously Steerable In Color Blood Flow Imaging Mode in Real Time Colorized <u>Spectrum Display</u>.</li> <li>• Tissue Harmonic Imaging With Two Frequencies</li> <li>• 2D Image With Color Flow</li> <li>• Power Doppler</li> <li>• Auto Image Optimization/Quick Scan for Single Button Optimization Of All Scanning Parameters Including STC</li> <li>• Overall Gain And Doppler Spectrum. Compound Scanning Using Frequency As Well As Spatial Compounding.</li> <li>• Trapezoid Imaging for Linear Probes.</li> </ul> <p><u>Measurement Package:</u></p> <ul style="list-style-type: none"> <li>• To Provide Comprehensive Software Package For Measurement Of Distance Circumference, Area, Time, Depth etc. And Separate Software For, Cardiovascular Including Venous Doppler Study, IMT (Intima Medial Thickness)</li> </ul> <p><u>System Complete With Following Facilities and Accessories:</u></p> <ul style="list-style-type: none"> <li>• Medical grad 19-Inches or better Color Monitor.</li> <li>• ECG Including Cables and Transducers/Electrodes.</li> </ul> <p><u>Standard Probes</u></p> <ul style="list-style-type: none"> <li>• 2-4MHz Or More Multi-frequency Sector Probe For Adult.(Model must be mentioned)</li> <li>• 5.0 MHz Sector Probe for Paeds. (Model must be mentioned)</li> </ul> <p><u>STD Recording Devices</u></p> <ul style="list-style-type: none"> <li>• Built-In CD/DVD Recorder For Digital Image Storage</li> <li>• Built-In / Separate Compatible Imported Ups (Minimum Backup Time &gt; 10Minutes)</li> <li>• B/W Thermal Printer. (Model/make must be mentioned)</li> <li>• <b>Optional:</b> T. Probe (Trans Esophageal probe) for adults and child/paeds.(model must be mentioned)</li> <li>• Frequency range: 2.3 - 7.2 MHz</li> </ul>	
5	Defibrillator	<ul style="list-style-type: none"> <li>• Semi-automatic maximum 270 joules biphasic defibrillator with monitor and AED mode.</li> <li>• Synchronized output with ECG.</li> <li>• Control of energy charging/ delivering on main panel &amp; apex paddle.</li> <li>• Charging Indicators.</li> <li>• The energy range should be adjustable for Paeds and adults up to 270 Joules.</li> <li>• Charging Time for full energy will be less than 10sec.</li> <li>• Screen Size of approx. 5 inch or better colored.</li> <li>• Display of HR, ECG through paddles and Lead I, II &amp; III patient cable.</li> <li>• Built in recorder for printing of full summary on standard paper.</li> <li>• Alarms for High and low Heart rate, low battery warning.</li> <li>• AC 220V / 50 Hz operated.</li> <li>• Built-in Rechargeable battery with charger for at least 50 shocks at max. Energy.</li> <li>• Auto tester/self-check.</li> <li>• External pediatric and adults Paddles, ECG cable with reusable electrodes for adult &amp; paeds.</li> <li>• AED facility.</li> <li>• <b>Optional:</b> Pace maker facility.</li> </ul>	
6	ECG Machine 12 channels (for DHQ level Hospitals)	<ul style="list-style-type: none"> <li>• Simultaneous acquisition of 12 channels, and LCD display.</li> <li>• Inbuilt thermal recorder for printing out 12 channels simultaneously.</li> <li>• ECG Interpretation Software with 200 or better findings for complete ECG Analysis reports with measurement data table should be provided.</li> <li>• Must be able to indicate at least four critical values that require immediate clinical attention.</li> <li>• AC as well battery operated.</li> <li>• Complete with Patient Cable,</li> <li>• Reusable Electrodes Set,</li> <li>• ECG Rolls 20 Nos,</li> <li>• Gel 5 litres and Standard Accessories with each unit.</li> </ul>	
7	ECG Machine 3 channels	<ul style="list-style-type: none"> <li>• 03 channels ECG Machine</li> <li>• Should be portable and lightweight.</li> </ul>	

	(for Category C or lower level Hospitals)	<ul style="list-style-type: none"> <li>• Voltage 220 volts, 50hz</li> <li>• Display 6.5" or better Touch color Screen</li> <li>• Simultaneous 12 leads acquisition...</li> <li>• Must have continuous display of patient heart</li> <li>• Must have integrated pediatric analysis.</li> <li>• Up to 600 interpretive statements</li> <li>• Must be able to indicate at least four critical values that require immediate clinical attention.</li> <li>• <u>Printer</u>: High Resolution and in built thermal array printer.</li> <li>• Battery Capacity: Must be 4 hours without printing.</li> <li>• Complete with Patient Cable.</li> <li>• Reusable Electrodes Set.</li> <li>• ECG Rolls 20 Nos.</li> <li>• Gel 5 liters and Standard Accessories with each unit.</li> </ul>	
8	Infusion pump	<ul style="list-style-type: none"> <li>• With electrically operated pump.</li> <li>• Power requirements: 220v; 50Hz</li> <li>• Infusion rates 1 to 999ml/hr.</li> <li>• Volume accuracy over range of infusion rates.</li> <li>• Volume infusion switch.</li> <li>• Facility with reduction to keep vein open.</li> <li>• Volume infused display.</li> <li>• Full alarm system.</li> <li>• Air in line detection.</li> <li>• Occlusion detection capability.</li> <li>• Vertical stand mobile type</li> <li>• With all accessories.</li> </ul>	
9	Pulse Oximeter	<ul style="list-style-type: none"> <li>• Sensors: Finger clip with probe for neonatal , Paeds &amp; adult</li> <li>• All sensors pre calibrated and interchangeable</li> <li>• Range: O2 saturation 45 -100%</li> <li>• Pulse rate 20 - 300bpm</li> <li>• Display: Pulse waveform, SPO2 short trend and pulse rate and O2 Saturation</li> <li>• Resolution: O2 saturation 1%</li> <li>• Accuracy: O2 saturation 80-100% <math>\pm 2\%</math></li> <li>• Pulse rate <math>\pm 1\%</math> <math>\pm 1</math>digit</li> </ul>	
10	ICU Ventilator	<p>Ventilator, electrically operated microprocessor controlled, time cycles, volume, pressure limited, suitable for adult/Paeds/Neonate use.</p> <ul style="list-style-type: none"> <li>• Tidal Volume: 5 ~ 2000 or better on either side.</li> <li>• Frequency: 4 ~ 150b/min or better on either side.</li> <li>• Inspiratory relief pressure with audible alarm: 20 ~ 80cm H<sub>2</sub>O</li> <li>• Patient Circuit: Autoclavable/ dis infectable: 1.20m or long (adult &amp; peads)</li> <li>• Patient circuit Dia: silicon hose single bore 15mm ~ 22mm</li> <li>• Demand flow</li> <li>• Tube supplied with rail &amp; pole clamp</li> <li>• Patient circuit hose</li> <li>• Expiration pressure in dilator.</li> <li>• Probe gas inlet.</li> <li>• O2 and Air input hoses</li> <li>• <u>Monitoring</u> of FiO<sub>2</sub>/IV/Exp. Minute volume, RR, Pressure Ratio, PIP, PEEP, BiPAP, APRV, and BPRV, bi-level ventilation, capnometry, VTPC</li> <li>• PEEP: 0 ~ 30cmH<sub>2</sub>O</li> <li><input type="checkbox"/> FiO<sub>2</sub> 21 ~ 100%</li> <li>• Pressure support mode</li> <li>• Built-in Battery Backup, one hour or more.</li> <li>• TFT / LCD Monitor Size:</li> <li>• Loops and waveform display.</li> <li>• Should operate on O2 or Air</li> <li>• Alarms for Gas failure, RR, Pressure, Apnea, Volume, Low Battery</li> <li>• Humidifier</li> <li>• Turbine</li> <li>• With turbine, air Compressor (Built-in)</li> </ul>	

		<ul style="list-style-type: none"> <li>• Nebulizer Facility (Built-in)</li> </ul>	
11	Humidifier	<ul style="list-style-type: none"> <li>• Adjustable exit steam Moisture sensors for adjusting required moisture.</li> <li>• Transparent water container. Easy to clean thermo steam maker parts.</li> <li>• Applicable to create desirable atmosphere for children.</li> <li>• Built-in circuit breaker to be operated in time of dry up.</li> <li>• Must have cool body all through the operation.</li> <li>• Should have thermo steamer element with Teflon resistant coating.</li> <li>• Easy cleaning.</li> </ul>	
12	Ripple mattress	<ul style="list-style-type: none"> <li>• Alternating pressure mattress with support area of 1720mmX 860mm or more.</li> <li>• To contain 14 or more air cells with variable geometric section.</li> <li>• The material to contain an anti-bacterial agent.</li> <li>• To have a reinforced base sheet membrane with removable cells and protective cover.</li> <li>• Within built compression pumps having equalizing device to prevent over inflation.</li> <li>• Cycle time to be 10 minutes.</li> <li>• To have a low-pressure indicator.</li> <li>• To be supplied with a case having handles for easy storage.</li> <li>• With five spare cells.</li> </ul>	
13	24 Hour BP Monitoring machine	<ul style="list-style-type: none"> <li>• The system should have               <ol style="list-style-type: none"> <li>1. Solid State light weight 02 No's Digital Recorders.</li> <li>2. Two Cuffs</li> <li>3. Artifact subtraction</li> <li>4. With USB port.</li> </ol> </li> <li>• Analyzer with Auto analysis Facility</li> <li>• Complete with software</li> <li>• Compatible with PC to get analysis on printer.</li> </ul>	
14	Nebulizer	<ul style="list-style-type: none"> <li>• Aerosol with piston Electro compressor.</li> <li>• Nebulizing rate: 0.35 ml/minute or better</li> <li>• Compressor Pressure 40 psi or better.</li> <li>• Compressor air flow: 10lit/min or more.</li> <li>• Noise Level: 60db or less.</li> <li>• Granule-metric size of medication: 1-10 microns by means of multi PIPSER Component.</li> </ul>	
15	ICU Trolley	<ul style="list-style-type: none"> <li>• Emergency Crash Cart, unit to be supplied completely equipped</li> <li>• With stainless steel top, 630 x 445mm or better.</li> <li>• 25mm or better dished. Lift -up laminated work flap Approx.</li> <li>• 305mm x 455mms or better.</li> <li>• Three or more drawers with Lower cup board with central locking/ securing all drawers and cupboard.</li> <li>• Double hook Stainless steel I.V Pole.</li> <li>• Double push handle.</li> <li>• Low level plastic bumper bar.</li> <li>• Quality castors 04 No's (2 with braking)</li> <li>• 2x stainless steel cylinder holders for D or E size cylinders.</li> <li>• With Cardiac board 600 x 400 x 55mm or better. With stainless steel housing brackets at rear of trolley.</li> <li>• Universal rail system fitted on top of trolley.</li> <li>• Aneroid sphygmomanometer with adult Velcro cuff, rail clamp Electronic timer.</li> <li>• Rail clamp Venturi suction unit with 02 litters jar and Suction tube.</li> <li>• Connecting tubing for 0- 15 rpm O2 flow meter fitted to O2 venturi outlet Pin Index.</li> <li>• Regulator with outlet for connection to remote venturi hose and O2 outlet.</li> <li>• <u>Intubation set comprising of:-</u> <ol style="list-style-type: none"> <li>1. Macintosh Laryngoscope with 3 blades.</li> <li>2. Magill introducing forceps.</li> <li>3. Adult resuscitator-set disposable.</li> <li>4. Endo tracheal tubes Set 05 No's</li> <li>5. Guedel airways for adult and peds 03 No's.</li> <li>6. Pen torch-artery forceps 02 No's.</li> <li>7. Dressing scissors 02 No's.</li> </ol> </li> </ul>	

		8. Examination light to rail clamp.	
16	Transport Ventilator	<ul style="list-style-type: none"> <li>To be used for adult, child and infant ventilation during Cardiopulmonary resuscitation and for ventilation during transpiration when necessary.</li> <li>To have frequency control 4 to 100 bpm,</li> <li>Tidal volume control 5-2000ml</li> <li>Inflation pressure monitor 0 to 100 cm H<sub>2</sub>O.</li> <li>Air mix control 21 to 100%.</li> <li>Adjustable relief pressure with audible alarm 20 to 80 cm H<sub>2</sub>O.</li> <li>PEEP facility 0 to 20 cmH<sub>2</sub>O or better.</li> <li>Patient circuit 1.25m long, 15mmsingle bore silicone hose autoclavable.</li> <li>With build in compressor/ turbine/ battery Backup.</li> <li>Should be compatible with 220V AC, 12-V DC supply</li> <li>Test Lung Adult/Pead.</li> </ul>	
17	Oxygen Concentrator	<ul style="list-style-type: none"> <li>Micro Processor controlled.</li> <li>Oxygen Flow Range: 0 to 5 litter per Minute</li> <li>Noise level (&lt;45dbA).</li> <li>With filter.</li> <li>With OPI (oxygen purity indicator) &amp; Alarm at very low oxygen level.</li> <li>Audio visual alarm for:</li> <li>Power loss, Low pressure, air leak, hardware failure, Mechanical Failure, Overheating and High Pressure.</li> <li>Oxygen Percentage level:</li> <li>1-3 Ltr per Minute 93%±3%</li> <li>4 Ltr per Minute 95%±3%</li> <li>5 Ltr per Minute 95%±3%</li> </ul>	
18	ETT Machine	<p><b><u>Specification</u></b></p> <ul style="list-style-type: none"> <li>PC based computerized stress test machine with window based software</li> <li>12-Channel Stress Test with recording, presentation and Evaluation of ECG.</li> <li>Manual and automatic event memory</li> <li>ST-Trend and ST-Level display of all 12 channels.</li> <li>Display of blood pressure, heart rate and arrhythmia.</li> <li>QRS-Complex show in a superimposed mode.</li> <li>Review function at any time during exercise</li> <li>Standard or individual protocols.</li> <li>Automatic control of treadmills in speed and elevation in load</li> </ul> <p><b><u>QRS-Analysis:</u></b></p> <ul style="list-style-type: none"> <li>Analysis of the stress Test with control of histograms.</li> <li>ST level and Trend histograms of all leads.</li> <li>Display of QRS complex</li> <li>Manual ECG with time curser.</li> <li>With built-in calipers for measurement control</li> <li>ECG analysis during exercise</li> </ul> <p><b><u>Resting software:</u></b></p> <ul style="list-style-type: none"> <li>Resting ECG software 12 Leads simultaneous</li> <li>Data management software</li> <li>Rhythm recording in resting mode</li> <li>QT desperation software</li> <li>Interpretation</li> </ul> <p><b><u>Treadmill( Medical Grade)</u></b></p> <ul style="list-style-type: none"> <li>Heavy duty whispers quiet even at high speed</li> <li>Speed :0 – 16.0 km/h or better</li> <li>Speed tolerance:&lt; 5 %</li> <li>Elevation: 0 ° to 22 °</li> <li>AC 220V / 50Hz</li> <li>Patient weight :170 kg, or better</li> </ul>	



		<ul style="list-style-type: none"><li>• Emergency stop button</li><li>• Side and front rail,</li></ul> <p><b>computer system:</b></p> <ul style="list-style-type: none"><li>• Branded computer system compatible with Unit.</li><li>• 19 inch TFT monitor with resolution of 1024x1024.</li><li>• Alphanumeric key board and mouse.</li></ul> <p>CPU</p> <ul style="list-style-type: none"><li>• <u>Intel Core i7.</u></li><li>• <u>Processor 8Mb cache 3.40GHz</u></li><li>• <u>16GB RAM DDR3</u></li><li>• <u>1TB internal Hard Disk</u></li><li>• <u>8GB graphic card</u></li><li>• <u>DVD R/W</u></li></ul> <p><b><u>COMPONENTS:</u></b></p> <ul style="list-style-type: none"><li>• ECG Amplifier</li><li>• Patient cable</li><li>• Laser printer( Brand must be mentioned)</li><li>• Trolley from the original manufacture</li><li>• UPS for at least 30 minutes for computer system( Brand must be mentioned)</li></ul>	
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**Category: Medical Items**

**Selection will be subject to Sample**

S#	Nomenclature	Specifications	Qty
1	Adult Weighing Scale	<ul style="list-style-type: none"><li>• Scale to have low level platform finished with non-slip cover, measuring Dial to be fitted at waist high steel yard arm.</li><li>• Capacity: -0 kg -200kg or better.</li><li>• Fitted with imperial and metric height measuring rod.</li></ul>	
2	Baby Weighing Scale	<ul style="list-style-type: none"><li>• Scales to be highly accurate and stable.</li><li>• Touch controls with splash proof key board.</li><li>• The baby weighing pan to removable.</li><li>• Automatic hold, slow and tare controls.</li><li>• Capacity: 0 kg to 30kg or better.</li></ul>	
3	BP Apparatus with Stand	<ul style="list-style-type: none"><li>• Constructed from shatter resistant materials fully protected plastic manometer tube with clear reading scale, range 0 to 300 mm Hg.</li><li>• Integral mercury reservoir.</li><li>• Spring coil tube with bulb. (Pump).</li><li>• Pediatric and adult cloth cuff with Velcro fastening cuff holder.</li><li>• Unit mounted on stable 4 to 5 castor mild steel base.</li></ul>	
4	BP Apparatus with Pediatric Cuffs	<ul style="list-style-type: none"><li>• Constructed from shatter resistant materials fully protected plastic manometer tube with clear reading scale, range 0 to 300 mmHg.</li><li>• Integral mercury reservoir.</li><li>• Spring coil tube with bulb. (Pump).</li><li>• Cloth cuff for adult. Children and neonates. With Velcro fastening cuff holder.</li></ul>	
5	BP Set Mercury Desk Top	<ul style="list-style-type: none"><li>• Sphygmomanometer in lightweight case.</li><li>• Recessed plastic manometer tube range 0-300mm Hg with shatter proof reservoir.</li><li>• Velcro fastening cuff for adult, pediatric and infant.</li><li>• Provision for storage for bulb, valve tubing and cuffs.</li></ul>	
6	BP Set Wall Mounted	<p><u>Sphygmomanometer Mercurial Wall Mounted</u></p> <ul style="list-style-type: none"><li>• Sphygmomanometer constructed from shatter proof materials</li><li>• Fully protected plastic manometer with clear reading scale, range 0-300mmHg to be mounted on wall.</li><li>• Integral mercury reservoir, spring coil tube, bulb, valve, Velcro fastening cuff adult &amp; Pediatric.</li></ul>	
7	Diagnostic Set Paeds	<ul style="list-style-type: none"><li>• Pediatric diagnostic set, comprising auroscope head with 3 standard specula &amp; nasal speculum.</li><li>• With ophthalmoscope head.</li><li>• Laryngeal stem to take tongue depressor.</li><li>• Laryngeal or post nasal mirror, Antrum sheath.</li><li>• Large handle and two spare lamps.</li><li>• All to be supplied complete with plastic covered case.</li></ul>	
8	Ear Syringe	<ul style="list-style-type: none"><li>• Ear Syringe for cleaning of ear</li><li>• Stainless steel made</li><li>• Capacity: 10 ml or more.</li></ul>	
9	ENT Diagnostic Set (Adult)	<ul style="list-style-type: none"><li>• Auroscope head with 3 standard specula.</li><li>• Nasal speculum,</li><li>• Laryngeal stem to take tongue depressor,</li><li>• Laryngeal or post nasal mirror</li><li>• Antrum sheath.</li><li>• Large handle and two spare lamps.</li><li>• All to be supplied complete in plastic covered case.</li></ul>	
10	Glucometer	<ul style="list-style-type: none"><li>• Glucose monitor, battery operated, hand held, complete with case,</li><li>• Lancet holder with lancets and glucose monitoring strips.</li></ul>	

		<ul style="list-style-type: none"> <li>• The supplier to ensure the availability of strips.</li> <li>• To be supplied with 200 strips.</li> </ul>	
11	Otoscope Rechargeable	<ul style="list-style-type: none"> <li>• Diagnostic Set</li> <li>• Battery Handle with chargeable batteries</li> <li>• Charging holder with the transformer</li> <li>• Otoscope head with halogen bulb</li> <li>• One each reusable ear speculum sizes: 2, 3, 4 and 5mm</li> <li>• Five each disposable ear specula 2.5 and 4.0mm</li> <li>• One magnifying glass for operation</li> <li>• With spare bulb</li> </ul>	
12	Peak Flow Meter	<ul style="list-style-type: none"> <li>• Performance Date</li> <li>• Accuracy: <math>\pm 10\%</math> or 20 L/min whichever is greater.</li> <li>• Repeatability: <math>&lt; 5\%</math> or 10 L/min whichever is greater.</li> <li>• Inter device Variability: <math>&lt; 10\%</math> or 20 L/min whichever is greater.</li> <li>• Materials</li> <li>• Main Body: Impact-resistant ABS plastic</li> <li>• Cover and Handle: High-density poly propylene.</li> <li>• Scale: Hot-stamped, alcohol resistant.</li> <li>• Full measurement Range: 50 to 810 L/min or better.</li> <li>• With increment: 10L/min to 50L/min.</li> </ul>	
13	Stethoscope	<ul style="list-style-type: none"> <li>• Light weight aluminum adult chest piece construction.</li> <li>• Adjustable chrome binaural</li> <li>• Flexible one piece molded 'Y' PVC tubing.</li> <li>• Ergonomic plastic ear tips.</li> </ul>	
14	Stethoscope Nursery	<ul style="list-style-type: none"> <li>• Light weight aluminum Pediatric chest piece construction.</li> <li>• Adjustable chrome binaural, Flexible one piece molded 'Y' PVC tubing.</li> <li>• Ergonomic plastic ear tips.</li> </ul>	
15	Ambo bag Paeds	<ul style="list-style-type: none"> <li>• Silicon Resuscitation Bag with infant / child face mask sizes 00, 0, 1, 2 &amp; airway size 0, 1, 2 with E2 valve and fully autoclavable.</li> <li>• The resuscitator to meet with all requirements lay down by international standards.</li> <li>• Reservoir Bag volume approx. 600ml.</li> <li>• Oxygen Reservoir Volume approx. 2500ml for adult and child</li> <li>• Tidal maximum volume: approx. 200ml for infant</li> <li>• Unit to operate in all climatic conditions and not to be dependent upon a power supply.</li> <li>• To be able to connect to an oxygen supply up to 100%.</li> <li>• The resuscitator must be able to ventilate through a mask and/or endo tracheal tube.</li> <li>• Re-usable and must be autoclavable</li> </ul>	
16	Ambo bag (Adult)	<ul style="list-style-type: none"> <li>• Silicon Resuscitation Bag with adult face mask sizes 3, 4, 5 &amp; Airway size 3, 4, 5 with E2 valve and fully autoclavable.</li> <li>• Reservoir Bag volume 2 Liter or more.</li> <li>• Oxygen Reservoir Volume approximately 2500 ml for adult.</li> <li>• Tidal maximum volume: approximately 1000ml for adult.</li> <li>• Resuscitation bag to be manually operable and able to be connected to an oxygen source up to 100% for ventilation through a mask or an endotracheal tube.</li> <li>• To be able to connect to an oxygen source up to 100%. Unit to be supplied with a carrying case.</li> <li>• Re-usable and must be autoclavable</li> </ul>	
17	Manual Suction Apparatus for ICU	<ul style="list-style-type: none"> <li>• Foot operated suction machine with heavy duty piston.</li> <li>• Pressure gage,</li> <li>• Suction Jar 1000ml with pipe 2 meters long and suction nozzle.</li> </ul>	
18	Baby Resuscitation Apparatus	<p>Complete kit in a carry bag including:</p> <p>Infant Resuscitator: -</p> <ul style="list-style-type: none"> <li>• Silicon Resuscitation Bag with infant face mask sizes 00 &amp; 01 with non-re-breathing valve with 40cm of H<sub>2</sub>O pressure release</li> </ul>	

		<ul style="list-style-type: none"> <li>Fully Autoclavable.</li> <li>Reservoir Bag volume 250ml</li> <li>360° swiveling patient connector</li> <li>Resuscitation bag to be manually operable and able to be connected to an oxygen source up to 100% for ventilation through a mask or an endotracheal tube.</li> <li>To be able to connect to an oxygen source up to 100%.</li> <li>1.5 meter O2 tubing</li> <li>Foot Suction:</li> <li>Compact, lightweight, easy to handle and operate durable rubber bellow long lasting stainless spring to provide friction free pumping Completely Autoclavable polycarbonate vacuum jar with lid (400 ml capacity)</li> <li>Scratch proof powder coated frame</li> <li>Laryngoscope:</li> <li>Fiber-optic laryngoscope with stainless steel straight blades of size 0 &amp; 1 with penlight handle</li> <li>Airways:</li> <li>Silicone, Autoclavable &amp; reusable in sizes 000, 00 &amp; 0</li> <li>Oxygen Cylinder:</li> <li>Portable Oxygen Cylinder 1.5 lit complete with oxygen regulator and tubing. Complete kit in one carrying case.</li> </ul>	
19	Vision Testing Drum	<ul style="list-style-type: none"> <li>Testing box to be wall mounted must be supplied with the following panels.</li> <li>English Alphabets 1No</li> <li>Illiterate "E" 1No</li> <li>Illiterate "C" 1No</li> <li>Children's 1No</li> <li>To be manually rotated.</li> </ul>	
20	(Plus 78 D) Lens Set	<ul style="list-style-type: none"> <li>Three mirror Universal lens laser coated.</li> <li>Standard 78D lens laser coated.</li> <li>Standard 90D lens laser coated</li> <li>Super field NC lens laser coated</li> <li>20D Indirect ophthalmoscopy lens laser coated</li> </ul>	
21	Binocular Magnifier	<ul style="list-style-type: none"> <li>Binocular Head band</li> <li>W/Optical Grade Lens plate ,</li> <li>Magnifier 2 to 4 times.</li> </ul>	
22	Ophthalmoscope	<ul style="list-style-type: none"> <li>Branded</li> <li>3.5V Ophthalmoscope</li> <li>Rechargeable Handle</li> <li>Carrying Case</li> <li>Battery operated</li> </ul>	
23	Ophthalmoscope + Retinoscope Rechargeable	<ul style="list-style-type: none"> <li>Branded ophthalmoscope</li> <li>Designed to ensure Ultimate control.</li> <li>Lenses graticules and filters can all be easily changeable.</li> <li>Xenon illumination</li> <li>Positive Action wheel.</li> <li>Comprehensive Lens Range +29D to -30D.</li> <li>Swing over Red Free Filter.</li> <li>Professional Retinoscope suitable for Streak or Spot.</li> <li>Interchangeable soft brow rest.</li> <li>Focal illuminator,</li> <li>With Handles. Spare bulbs. Protective case.</li> </ul>	
24	Measuring Stand Infant	<ul style="list-style-type: none"> <li>Baby height measuring board for children upto 2 years age.</li> <li>Smooth and precise easy glide foot piece for accuracy of measurement.</li> <li>Head piece to be perpendicular to base with cut-out handle for increase mobility.</li> <li>Measuring range 21 to 99 cm.</li> </ul>	
25	Proctoscope for adult & child	<ul style="list-style-type: none"> <li>Proctoscope for child &amp; adults can be used for observing and diagnosis the disease of anus, rectum and sigmoid colon.</li> <li>Direction of View 0°</li> <li>Working Length 150-300mm or better</li> <li>Working Distance 20mm or better</li> <li>Light Guide Bundle Length 1640mm or better</li> </ul>	

		<ul style="list-style-type: none"><li>• With Compatible Light Source from the same manufacturer</li></ul>	
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**Category: Medical Furniture**

**Selection will be Subject to Sample**

**Note:** The structure of all the items included in the category of medical furniture shall be seamless, smooth and free from cavities, in order to avoid hideouts/safe areas for germs/infectious agents. And shall be serializable for prevention and control of infections. All the corners shall be round and the joints shall be made smooth.

S #	Name of item	Specification	Qty
1.	Bed side steel stairs	Fully chrome plated frame, made of hollow pipe diameter 1" Shaped for two steps. Front and rear legs provided with steel bars. Wooden step duly covered with rubber mat and sides dressed with aluminum/strip.	
2.	Bed with side Table, over bed trolley and side railings	<p><b><u>Bed:</u></b> Over all dimension (LxWxH) 195cmx 85cmx 55cm</p> <ul style="list-style-type: none"> <li>Four section beds with all welded enameled main frame constructed from rectangular section steel tube of 16SWG steel sheets.</li> <li>Adjustable back rest and leg section by means of two independent cranks with square threads pitch revolving in steel nuts by means of rectangular handle.</li> <li>Removable bed ends fitted with 10mm laminated plastic panels.</li> <li>Platform fitted with epoxy painted steel bars of 18 SWG steel.</li> <li>The bed is mounted on double ball bearing, swivel castors of non- tin and weather proof rubber. Two fixed at head end and two swiveling with independent breaks at foot end.</li> <li>Rubber bumpers at all four corners</li> <li>Four Mattress holders (2 at each side)</li> <li>With I V pole.</li> <li>Structure of the platform shall be smooth and seamless.</li> <li>Platform shall not contain cavities in order to avoid hideouts/safe areas for germs.</li> <li>All the corners of the platform shall be round and smooth.</li> <li>All the joints shall be made smooth.</li> </ul> <p><b><u>Bed side Locker:</u></b></p> <ul style="list-style-type: none"> <li>Overall size of locker 40cm width, 40cm depth, 80 cm height.</li> <li>Made up of M.S sheet 18 SWG.</li> <li>Top made of CP galvanized steel sheet,</li> <li>One drawer. One cabinet with space between the drawer and cabinet.</li> <li>Base made of 1" round/square pipe.</li> <li>FINISH: Polyester powder coated finishing</li> </ul> <p><b><u>OVER BED TABLE:</u></b></p> <ul style="list-style-type: none"> <li>Top made of melamine sheet.</li> <li>Height adjustable approx. 750mm to 1100 mm</li> <li>Height may be raised or lowered by lifting release bar under the table top by hydraulic mechanism or spring.</li> <li>Mobile on four castors.</li> </ul> <p><b><u>Side Railing:</u></b> Adjustable length allows for use at bed rail to prevent falling out of bed. Collapsible in 2 steps, Height of Rail 18" (high from the base of mattress)</p>	
3.	Bed side table	Specifications mentioned above in S No. 02	
4.	Beds with side table & over bed trolley for recovery room	Specifications mentioned above in S No. 02	
5.	Drip stand	<ul style="list-style-type: none"> <li>Heavy Weight base mobile on 50 mm dia castors</li> <li>Powder coated base and column with telescope adjustment.</li> <li>4 ports I/V rod of wire diameter 0.5 mm.</li> </ul>	
6.	Couch for Ultrasound / Examination couch	<ul style="list-style-type: none"> <li>Frame to be one piece welded mild steel powder coated.</li> <li>Headrest to have step less angle adjustment from horizontal to 75°</li> <li>2" Mattress of 2.5 lbs/cft density with water proof sterilize able cover.</li> <li>Paper roll holder to be fitted at head end and suitable for paper rolls up to 510mm wide.</li> <li>Size Approx. 2000mm x 500mm with standard height.</li> </ul>	

7.	Gynae examination couch	<ul style="list-style-type: none"> <li>• Couch top made in 3 sections.</li> <li>• Leg section removable.</li> <li>• Backrest adjustable with friction clutch</li> <li>• With hand grips on both the sides.</li> <li>• Cushioned with Rexene and foam mattress.</li> <li>• Sliding stainless steel receptacle mounted under the hip area,</li> <li>• Complete with pair of Lithotomy poles and tying strips.</li> </ul>	
8.	Instrument trolley	<ul style="list-style-type: none"> <li>• Frame constructed of stainless steel hollow pipe,</li> <li>• Complete with two Stainless steel trays having open space between it.</li> <li>• Both trays provided with reinforcement as side guards for safety.</li> <li>• Mobile on 50mm dia, twin wheels.</li> <li>• Size(60x90)cm</li> </ul>	
9.	Patient Trolley	<ul style="list-style-type: none"> <li>• Single crank,</li> <li>• Rubber bumper guards on all sides,</li> <li>• Mobile on 23 cm dia rubber castors,</li> <li>• Removable tarpaulin / Rexene stretched detachable stretcher.</li> <li>• Provided with oxygen cylinder holder,</li> <li>• Utility tray</li> <li>• I.V pole.</li> <li>• Safety side guards with revolving latch for up &amp; down adjustment.</li> <li>• Overall Size: length 5 ft 4", width: 2 ft, adjustable height: maximum 2 ft 6".</li> </ul>	
10.	Railing for beds	<ul style="list-style-type: none"> <li>• Adjustable length allows for use at bed rail to prevent falling out of bed.</li> <li>• Collapsible in 2 steps, Height of Rail 18" (high from the base of mattress)</li> </ul>	
11.	Wheel Chair	<ul style="list-style-type: none"> <li>• Folding Wheel Chair,</li> <li>• Detachable Desk Armrests,</li> <li>• Swinging Detachable Elevating (Adjustable height) leg rests.</li> <li>• Footsteps made of Aluminum.</li> <li>• With Safety belt.</li> <li>• Seat width 38 x 43cm,</li> <li>• Made of high quality leather to withstand human load</li> </ul>	

12	Orthopedic Traction Bed	<ul style="list-style-type: none"> <li>• Head &amp; Foot Panels: Elegant High</li> <li>• Size:2030×900×530mm(LXWXH) or better</li> <li>• Functions : Two Functions</li> <li>• Movements &amp; Controls:</li> <li>• Back Lifting: Manual</li> <li>• Quality Molded Panels</li> <li>• Top: Four Sections</li> <li>• Framework: Stainless Steel Panels</li> <li>• Stainless Steel Balkan Beam</li> <li>• Frame &amp; Pulley Attachment</li> <li>• and Patient Support Lifting Pole</li> <li>• Head &amp; Foot Panels: Elegant High</li> <li>• Color: Powder Coated</li> </ul> <p><b>Bed:</b> Over all dimension (LXWXH) 195cmx 85cmx 55cm</p> <ul style="list-style-type: none"> <li>• Four section beds with all welded enameled main frame constructed from rectangular section steel tube of 16SWG steel sheets.</li> <li>• Adjustable back rest and leg section by means of two independent cranks with square threads pitch revolving in high carbon steel nuts by means of rectangular handle.</li> <li>• Removable bed ends fitted with 10mm laminated plastic panels.</li> <li>• Platform fitted with epoxy painted steel bars of 18 SWG steel.</li> <li>• The bed is mounted on double ball bearing, swivel castors of non- tin and weather proof rubber. Two fixed at head end and two swiveling with in dependent breaks at foot end.</li> <li>• Rubber bumpers at all four corners</li> <li>• Four Mattress holders (2 at each side)</li> <li>• With I V pole.</li> <li>• Structure of the platform shall be smooth and seamless.</li> <li>• Platform shall not contain cavities in order to avoid hideouts/safe areas for germs.</li> <li>• All the corners of the platform shall be round and smooth.</li> <li>• All the joints shall be made smooth</li> <li>• With quality molded panels.</li> <li>• Stainless steel Balkan beam.</li> <li>• With frame and pully attachment</li> <li>• With patient support lifting polls</li> <li>• Complete with all orthopedic attachments and accessories.</li> </ul> <p><b>Side Railing :</b> Adjustable length allows for use at bed rail to prevent falling out of bed. Collapsible in 2 steps, Height of Rail 18” (high from the base of mattress)</p>	
13	Dissection Table	<ul style="list-style-type: none"> <li>• <b><u>Dissection Table</u></b></li> <li>• <b><u>FEATURE</u></b></li> <li>• Work surface with a high, profiled surround and a seamlessly welded basin.</li> <li>• Table top equipped with sound-proofing and features a negative inclination arranged diagonally to the drain.</li> <li>• Sub structure consists of rugged, torsion-resistant stainless steel profiles with adjustable feet's.</li> <li>• <b><u>TECHNICALSPECIFICATIONS:</u></b></li> <li>• Structure: Completely in stainless steel</li> <li>• Overall Length : 87 “</li> <li>• Overall Width :36”</li> <li>• Overall Height :36”</li> <li>• Basin L/W/D(inch) :79 x 28 x 12</li> <li>• Table carrying capacity: max. 200kg</li> <li>• <b><u>Accessories</u></b></li> <li>• Hydro aspirator</li> <li>• Stainless steel neck support.</li> </ul>	
14	Dressing Trolley	<ul style="list-style-type: none"> <li>• Constructed from stainless hollow pipe of 1 inch</li> <li>• With two shelves made of stainless steel, on top and bottom with side guards.</li> <li>• Two stainless steel drawers under the top shelf.</li> <li>• Stainless steel bucket and bowl with holders.</li> <li>• Mobile on 100mm dia rubber castors.</li> </ul>	



		<ul style="list-style-type: none"> <li>• Push handle for easy movement.</li> <li>• Size: (70 cm L*50 cm W *90 cm H)</li> </ul>	
15	Eclampsia Bed with Side Railing	<p>Hydraulic Hospital Bed suitable for use in intensive / coronary care units.</p> <p><u>Feature:</u></p> <ul style="list-style-type: none"> <li>• Adult Intensive Care bed with head and foot panels</li> <li>• Height adjustment with foot pedals.</li> <li>• Trendelenburg / anti-Trendelenburg position.</li> <li>• Radiolucent back rest, gas spring assisted movements with a special lever to lock the platform of any position, facilitates use of the C Arm imaging.</li> <li>• Usable X-Ray area L 27" x W29" with x-ray cassette holder.</li> <li>• Back plate and knee rise by gas shock mechanism to make a fowler position.</li> <li>• 5" castors, foot operated bow brake, locks three castors and provides easy steering.</li> <li>• Two mattress holders on each side.</li> <li>• Mattress with raxine covers to be provided according to the bed size.</li> <li>• Structure of the platform shall be smooth and seamless.</li> <li>• Platform shall not contain cavities in order to avoid hideouts/safe areas for germs.</li> <li>• All the corners of the platform shall be round and smooth.</li> <li>• Size: L 200 cm * W 91cm* H (adjustable) 40 to 45cm.</li> </ul> <p><u>Accessories:</u></p> <ul style="list-style-type: none"> <li>• Bed fitted patient lifting pole.</li> <li>• I.V Rod</li> <li>• To be provided with CPR board.</li> </ul> <p><b>Side Railing :</b> Adjustable length allows for use at bed rail to prevent falling out of bed. Collapsible in 2 steps, Height of Rail 18" (high from the base of mattress).</p>	
16	Steel Almirah for Medicines	<ul style="list-style-type: none"> <li>• 18 gauge steel, powder coated</li> <li>• With 5 shelves.</li> <li>• Size 4ft x 6ft x 2ft (WxHxD)</li> <li>• Sample to be approved.</li> </ul>	
17	OPD chairs S.S	<ul style="list-style-type: none"> <li>• 3 seater chairs (Steel) fixed / removable</li> <li>• Fitted on steel structure of section 40mm x 60mm.</li> <li>• with seating area approximately 51 Cm X 50 cm</li> <li>• With silver enameled finished.</li> <li>• The structure may be able to be fixed on the floor / replaceable.</li> <li>• Branded, Good Quality</li> </ul>	
18	Revolving steel stool	<ul style="list-style-type: none"> <li>• Stool with 16 SWG stainless steel structure and seat of diameter 300mm.</li> <li>• Height adjustable by simple spun mechanism.</li> <li>• Height adjustment not less than 53cm to 68cm.</li> </ul>	
19	Surgeon revolving steel stool	<ul style="list-style-type: none"> <li>• Stool with 16 SWG stainless steel structure and seat of diameter 300mm.</li> <li>• Height adjustable by simple spun mechanism. Height adjustment not less than 53cm to 68cm.</li> <li>• Mobile on 4 castors.</li> </ul>	
20	Folding Screens	<ul style="list-style-type: none"> <li>• Frame in four parts constructed from fully plastic coated M.S. hollow tubular pipe 1" dia.</li> <li>• All frames fixed together with ABS universal joints for easy movement of each part.</li> <li>• Curtains fitted with spring loaded rods,</li> <li>• mobile on six, castors of 75 mm dia.,</li> <li>• Curtain of wash and wear polyester cloth/ plastic cloth in variety of colors.</li> </ul>	
21	Steel file racks	<ul style="list-style-type: none"> <li>• 18 SWG filing rack powder coated,</li> <li>• With three shelves, all lockable and with handles.</li> <li>• size 400mmx750mmx 1400mm(WxDxH)</li> </ul>	

22	Dry Clean Trolley	<ul style="list-style-type: none"> <li>• Best quality, good material,</li> <li>• Size: structure made of hollow pipe 1" dia</li> <li>• Mobile on 4 castors</li> <li>• with detachable bag of parachable cloth</li> <li>• Size: 2.5 feet L * 2 feet W * 2.5 feet depth.</li> </ul>	
23	Baby Cots	<ul style="list-style-type: none"> <li>• Powder coated mild steel 18 SWG tubular frames.</li> <li>• Lying area made of rectangular hollow pipe frame with wire mesh.</li> <li>• Mobile on 50 mm dia. Rubber castors.</li> <li>• Safety sides can be adjustable up &amp; down easily.</li> <li>• Standard cushioned Rexene foam mattress with 3 inch thickness.</li> <li>• Laying area 55 cm x 100cm.</li> </ul>	
24	Cardiac Bed / ICU Bed Trendenbug With Side Supports	<p><b>Position:</b></p> <ul style="list-style-type: none"> <li>• <b>Height Adjustment:</b> By foot pump 40-47cms hydraulically operated.</li> <li>• <b>Trendenbug:</b> Leg Up= 30°, Leg Down= 20°, controlled by Bloc lift n spring with step less movement at the bed end.</li> <li>• <b>Castors:</b> 5" ball bearing rust proof, waterproof, high quality electrically conductive wheel castors with central brake system.</li> <li>• Back plate and knee rise by gas shock mechanism to make a fowler position.</li> <li>• Vascular position by means of lever or comb mechanism.</li> <li>• Bedding area is radio translucent material for doing X-ray and to apply C-Arm.</li> <li>• Base and back rest is designed to accommodate "C" arm in case of emergency,</li> <li>• For cardiac catheterization and other procedures so the central area of back rest is free of any metal part for "C" Arm radiology.</li> <li>• Have cardiac chair position, Head and foot bows are detachable in case of emergency for doing intubations and CPR.</li> </ul> <p><u>Dimension:</u></p> <ul style="list-style-type: none"> <li>• 200cm x 91cm, Height: 40-75cm adjustable</li> <li>• Main Frame: 1" x 2", 16SWG pipe round at all corners with invisible joints.</li> <li>• Base Frame; Frame made of 1½" x 3" M.S. pipe, 16SWG. Finish: Polyester powder coating finish after treating with de-rusting &amp; phosphating chemical.</li> <li>• I.V. Rod: 4 prongs revolving height adjustable having I.V ports on the sides of the bed.</li> <li>• Four reflecting rubber bumpers.</li> <li>• Urine bag holder and N.G bag holder hocks.</li> <li>• Basket for urine port</li> <li>• Basket for Bed pan</li> <li>• Patient lifting pole on both sides with triangular grip.</li> <li>• Mattress; Foam 4" Thick, with Length &amp; Width according to the Bed, with Rexene cover.</li> <li>• Structure of the platform shall be smooth and seamless.</li> <li>• Platform shall not contain cavities in order to avoid hideouts/safe areas for germs.</li> <li>• All the corners of the platform shall be round and smooth</li> </ul> <p><b><u>Side Railing</u></b> Adjustable length allows for use at bed rail to prevent falling out of bed. Collapsible in 2 steps, Height of Rail 18" (high from the base of mattress).</p>	

**Category: Anesthesia Equipment**

S#	Name of Item	Specification	Qty
1	Anesthesia Machine with two vaporizers	<p><b><u>Anesthesia unit with 2 Vaporizers and inbuilt ventilator</u></b></p> <p>Unit shall be comprised of the following components.</p> <ul style="list-style-type: none"> <li>• Non interchangeable pipeline inlets.</li> <li>• Pipeline and cylinder gauges for O<sub>2</sub> and N<sub>2</sub>O.</li> <li>• Pin index cylinder yolks for one or more cylinders of O<sub>2</sub> and N<sub>2</sub>O.</li> <li>• N<sub>2</sub>O cut off device in case of O<sub>2</sub> failure.</li> <li>• O<sub>2</sub> failure alarm.</li> <li>• Gas out let and O<sub>2</sub> flush control.</li> <li>• Lockable casters.</li> <li>• Monitor shelf.</li> <li>• Bar assembly for mounting of at least 2 vaporizers.</li> <li>• Impact resistant and easy to clean frame.</li> <li>• Cleanable works surface.</li> <li>• Absorber support arm.</li> <li>• Three gas flow meter unit.</li> <li>• O<sub>2</sub>, N<sub>2</sub>O and Air (4-bar) hoses.</li> <li>• Isoflorane and Sevoflorane vaporizer (models of the vaporizers must be mentioned).</li> <li>• One or more drawers unit power outlets with 4 or more sockets.</li> <li>• Auxiliary O<sub>2</sub> outlet.</li> <li>• Writing shelf/plateform.</li> <li>• Co<sub>2</sub> absorber 1-2 Kg complete with valve for bag/ventilator, manometer, 3 liter breathing bag, breathing tube, mouth and Y piece. Additional breathing hose and connector shall be supplied.</li> </ul> <p><b><u>Ventilator :</u></b></p> <p>Ventilator must be inbuilt with the anesthesia unit. Ventilator to be complete with manometer display. The ventilator shall be capable of ventilating pediatric patients. The ventilator shall have the following features as a minimum requirement.</p> <ul style="list-style-type: none"> <li>• Volume preset time cycled ventilator (IPPV/Mode)</li> <li>• Pressure controlled mode.</li> <li>• Electronic Microprocessor controlled.</li> <li>• On/Off switch.</li> <li>• Breathing mode selection. (Standby/Volume/Spontaneous and pressure).</li> <li>• Built in monitor 8" or better color screen to display all the mentioned parameters.</li> <li>• Inverse I: E Ratio Capability.</li> <li>• Gas specific input connectors (Air/Oxygen ISO)</li> <li>• Tidal Volume from 20 ml to 1500ml or better on either side</li> <li>• Rate or frequency 4 to 100bpm or better on either side</li> <li>• I:E ratio from 1:0.3 to 1:6.0 or better on either side</li> <li>• PEEP from 4 to 30cmH<sub>2</sub>O or better on either side</li> <li>• Spontaneous Mode monitoring(Active Volume Monitoring with pressure alarm)</li> <li>• Inspiratory pressure limits from 10 to 70cmH<sub>2</sub>O.</li> <li>• Adult bellows graduated from approximately 20ml to 1500ml.</li> <li>• <u>AGSS</u> (Anesthesia gas scavenging system).</li> <li>• Battery backup (60 minutes or more). <u>Audio</u></li> </ul> <p><u>Visual Alarm for the following:</u></p> <ul style="list-style-type: none"> <li>• Alarm mute.</li> <li>• Low/High FiO<sub>2</sub> Alarms (18% to 105%).</li> <li>• Low Supply Pressure (&lt;34PSI)</li> <li>• High Airway Pressure.</li> <li>• High Continuous Air Pressure (&gt;30cmH<sub>2</sub>O)</li> <li>• Low Pressure(PEEP Referenced)</li> <li>• Incorrect rate or Ratio</li> <li>• Mains failure.</li> <li>• Low Battery.</li> <li>• Ventilator Inoperative.</li> <li>• The ventilator shall be supplied complete with drive hose, cylinder connector and power cable.</li> </ul>	

		<ul style="list-style-type: none"> <li>• <u>The following RE-USABLE AND AUTOCLAVABLE accessories shall be supplied with the unit.</u></li> <li>• Reusable Magill circuit 2 No's</li> <li>• Disposable Bain Circuit 20 Nos.</li> <li>• Reusable Pediatric Breathing system 2. No's</li> <li>• Re-breathing bag 0.5l 2. No's</li> <li>• Re- breathing bag 1L 2. No's</li> <li>• Re-breathing bag 2L 2. No's</li> <li>• Forceps Magill adult 1.Nos</li> <li>• Forceps Magill Child 1 No's</li> </ul>	
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**Category: Anesthesia Supplies**

**Selection will be subject to Sample & Manufacturers mark must be present on each Item**

S#	Nomenclature	Specifications	Qty
1	Baby Anesthesia Set	Complete accessories anesthesia set for children 1. IV Canola's different sizes 2. Facemasks different sizes re-usable 3. Airways different sizes re-usable 4. Pediatric circuit re-usable 5. Ambobag	
2	Bain Circuit	<ul style="list-style-type: none"> <li>• Reusable and good quality circuit, imported.</li> <li>• Manufactured from clear, non-toxic implantation tested autoclavable PVC</li> </ul>	
3	Endo-tracheal Tubes	<ul style="list-style-type: none"> <li>• Endo-Tracheal Tubes, Reusable (Sterile)</li> <li>• Each set have Sizes; 2Fr,2.5Fr,3Fr,3.5Fr,4Fr,4.5Fr,5Fr,5.5Fr,6Fr,6.5Fr,7Fr,7.5Fr,8Fr</li> <li>• Manufactured from clear, non-toxic implantation tested autoclavable PVC.</li> <li>• Integra/nylon bite block</li> <li>• Imported</li> <li>•</li> </ul>	
4	Face Masks all sizes set (Small, Medium & Large sizes)	<ul style="list-style-type: none"> <li>• Each set have Sizes; Large, medium &amp; small</li> <li>• Manufactured from clear, non-toxic implantation tested autoclavable PVC.</li> <li>• Integra/nylon bite block</li> <li>• Imported</li> </ul>	
5	Laryngeal Face Masks (Small, Medium & Large sizes)	<ul style="list-style-type: none"> <li>• Each set have Sizes; Large, medium &amp; small</li> <li>• Manufactured from clear, non-toxic implantation tested autoclavable PVC.</li> <li>• Integra/nylon bite block</li> <li>• Imported</li> </ul>	
6	Air Ways (Small, Medium & Large sizes)	<ul style="list-style-type: none"> <li>• Airways Reusable (Non Sterile)</li> <li>• Each set have Sizes; Large, medium &amp; small</li> <li>• Manufactured from clear, non-toxic implantation tested autoclavable PVC.</li> <li>• Integra/nylon bite block</li> <li>• Imported</li> </ul>	
7	Pediatric Circuit	<ul style="list-style-type: none"> <li>• Reusable and good quality circuit, Imported.</li> <li>• Manufactured from clear, non-toxic implantation tested autoclavable PVC</li> </ul>	
8	Randall Baker Face Mask all sizes set	<ul style="list-style-type: none"> <li>• Each set have Sizes; Large, medium &amp; small</li> <li>• Manufactured from clear, non-toxic implantation tested autoclavable PVC.</li> <li>• Integra/nylon bite block</li> <li>• Imported</li> </ul>	
9	Sam Circuit (Small, Medium & Large sizes)	<ul style="list-style-type: none"> <li>• Reusable and good quality circuit, imported.</li> <li>• Manufactured from clear, non-toxic implantation tested autoclavable PVC</li> </ul>	
10	Stylets Adult	<ul style="list-style-type: none"> <li>• Reusable, autoclavable and good quality, imported</li> <li>• Nylon hard plastic PVC, different sizes (3, 4, 5,6 &amp; 7)</li> </ul>	
11	Stylets Paeds	<ul style="list-style-type: none"> <li>• Reusable, autoclavable and good quality, imported</li> <li>• Nylon hard plastic PVC, different sizes (3, 4, 5,6 &amp; 7)</li> </ul>	

**Category: Operation Theatre Equipment**

S#	Nomenclature	Specifications	Qty
1	Electric surgical unit Diathermy	<p><u>Electro surgical unit 400 watts with the following functions</u></p> <ul style="list-style-type: none"> <li>• PURE CUT,</li> <li>• BLEND(1),BLEND(2),BLEND(3)</li> <li>• COAG1 (spray), COAG2 (contact) and AUTO BIPOLAR, FOOT SWITCH BIPOLAR.</li> <li>• Microprocessor controlled.</li> <li>• Percentage output digital display shows on front panel.</li> <li>• Automatic bipolar output without using footswitch</li> <li>• Multi monopolar outlets, two hand control outlets and one Laparoscope outlet.</li> <li>• Hand or foot operated.</li> <li>• With bipolar output power profile to provide good resolution to permit small changes in power levels for delicate work.</li> <li>• Spray Coagulation for the Trans Urethral Resection (T. U. R) and Endoscopic procedures in urology.</li> </ul> <p><b>Adaptive REM Monitoring:</b></p> <ul style="list-style-type: none"> <li>• With REM facility</li> <li>• Alarm enables in case of monopolar output disables.</li> </ul> <p><b>Technical Specifications:</b></p> <ul style="list-style-type: none"> <li>• <b>Output Power</b>  PURECUT      400W at500Ω  BLEND1        270W at500Ω  BLEND2        200W at500Ω  BLEND3        160Wat500ΩCONTACT COAG  120Wat 500Ω SPRAYCOAG  70W at 500Ω BIPLAR COAG 70W  at100Ω</li> <li>❖ <b>Operating Frequency:</b> 400KHZ±10%</li> <li>❖ <b>Input Voltage:</b> 220V, 50Hz</li> <li>❖ Enclosure Leakage Current                      0.1 μA or less</li> <li>❖ Patient Leakage Current                          7 μA or less</li> <li>❖ Earth Leakage Current                            03.358mA or less</li> <li>❖ <b>Pulse Repetition</b></li> <li>❖ <b>Frequency:</b>                                        32KHz ±10%</li> </ul> <p><b>Standard Accessories</b></p> <ol style="list-style-type: none"> <li>1. Footswitch 2 pedal with cable</li> <li>2. Footswitch 1 pedal with cable</li> <li>3. Disposable Foot switching pencil with cable</li> <li>4. Disposable2pushbuttonmonopolarpencilwithcableandelectrode</li> <li>5. Reusable Bipolar forceps and Cable asset</li> <li>6. Reusable patient plate with cable for adult</li> <li>7. Set of electrodes (6Pieces) for reusable and disposable handle</li> <li>8. Power cable</li> </ol>	
2	Emergency light with single reflector AC/DC Or Examination light AC/DC	<ul style="list-style-type: none"> <li>• LED light source</li> <li>• Light intensity 50,000 lux at 0.5meters</li> <li>• LED life of 40,000 hours or more</li> <li>• Color Correction to 4300degKelvin</li> <li>• With intensity light control Mechanical:</li> <li>• Multi flex arm with ultimate flexibility of positioning the lamp head.</li> </ul> <p>Electrical Supply:</p> <ul style="list-style-type: none"> <li>• 220 volt 50Hz,</li> <li>• Reversible overload and short circuit protection</li> <li>• Backup power system with rechargeable branded dry battery(s) from the same manufacturer with backup time at least 05 hours</li> </ul>	
3	Hydraulic Operation	<u>General Design</u>	

	Table	<ul style="list-style-type: none"> <li>• Stable base construction with four castors for easy movement.</li> <li>• Manual base brake, lateral tilt and Trendelenburg adjusted by hand crank, base cover, side rails, accessories &amp; clamps made of stainless steel.</li> <li>• <u>Tabletop</u></li> <li>• Divided into 5 sections including head plate, back plate, seat plate and split leg plates. Table top elevation controlled by hydraulic system, with sliding table top 30 cm or more for unrestricted image intensifier access, with side rails for the insertion of X-Ray cassettes (table top made of acrylic sheet plates for X-ray radiography).</li> <li>• Length 190-200cm or better</li> <li>• Width 50cm or better</li> <li>• Height 75-95 cm or better</li> <li>• Trendelenburg/ Reverse Trendelenburg +20°/30°each</li> <li>• Lateral Tilt Left/Right 22°/20°each</li> <li>• Head plate up/down +40°/-40°</li> <li>• <u>Standard Accessories:</u></li> <li>• Mattress set, Pair of arm rest with quick dis-connectable clamps.</li> <li>• Adjustable head rest. Pair of shoulder supports.</li> <li>• Lithotomy pole with universal swivel clamps.</li> <li>• Anesthesia frame 1 Nos</li> <li>• Infusion rod 1Nos</li> <li>• Foot rests = 2 Nos.</li> <li>• Side supports 2 Nos</li> <li>• With inbuilt Kidney Elevator Facility.</li> </ul>	
4	Portable lamps AC/DC or Emergency light AC/DC	<ul style="list-style-type: none"> <li>• Operating Light with:-</li> <li>• Single or more domes</li> <li>• Fine focusing</li> <li>• On Balance mobile Stand</li> <li>• LED light source</li> <li>• Light intensity 1, 30,000 lux or more at 1 meter.</li> <li>• LED life of 40,000 hours or more</li> <li>• Color Correction to 4300degKelvin</li> <li>• With intensity light control</li> <li>• Multi flex arm with ultimate flexibility of positioning the lamp head.</li> <li>• <u>Electrical Supply:</u></li> <li>• 220 volt 50Hz,</li> <li>• Reversible overload and short circuit protection</li> <li>• Inbuilt Backup power system with rechargeable branded dry batteries with backup time at least 05 hours</li> </ul>	
5	Resuscitation Trolley	<ul style="list-style-type: none"> <li>• Over all dimension 2.5'(L) x 2'(W)x3' H or better</li> <li>• Electro-galvanized steel sheet structure, Epoxy powdered coated, finish rounded, edges washable and can be disinfected.</li> <li>• Height adjustable IV Holder rod.</li> <li>• Shelf for defibrillator/ECG can rotate with locking facility.</li> <li>• Sizes 1.5'x1.5' or more, adjustable.</li> <li>• Plastic worktop with ¾ inch raised rounded edges.</li> <li>• Three or more drawers.</li> <li>• Knee operated waste bin with bag holder.</li> <li>• Non marking rubber corner bumpers.</li> <li>• 4 x 125mm or better antistatic non skidded casters with 2 brakes.</li> <li>• Oxygen bottle support with fastening belts.</li> <li>• ABS Catheter tubes holder.</li> <li>• Surgical aspirator support.</li> <li>• Stainless steel bracket on back side for mounting oxygen cylinder.</li> <li>• Oxygen cylinder small size with regulator &amp; flow meter.</li> <li>• 04 Nos Electrical power outlet and rollup power supply cable.</li> </ul>	
6	Shadow less lamp	<ul style="list-style-type: none"> <li>• Operating light ceiling type</li> </ul>	

	(Ceiling type) <b>or</b> Ceiling OT light for minor OT <b>or</b> Ceiling OT light for post- mortem	<ul style="list-style-type: none"> <li>• Input power 220, 50 Hz</li> <li>• Single Dome</li> <li>• LED light source</li> <li>• Light intensity: 1,,60,000Lux at 1m</li> <li>• LED life 40,000 hours or more</li> <li>• Color Correction to 4300degKelvin</li> <li>• Backup power system with branded dry battery (s), with backup time at least 5 hours</li> <li>• With sterilized handle for movement.</li> <li>• Complete with Installation</li> </ul>	
7	Suction machine Heavy Duty/ Electric suction Machine	<ul style="list-style-type: none"> <li>• Mobile suction pump Oil-Less Piston along with 4 anti- static wheels with lock.</li> <li>• Convenient for operation , with following performance features:</li> <li>• Built-in Vacuum gauge with a range from: 0-650 mm Hg or better adjustable.</li> <li>• Flow capacity: Not less than 45l/min</li> <li>• Explosion proof footswitch.</li> <li>• Capacity of two graduated suction bottle: 3000cceach</li> <li>• Heat resistant and disinfect able rubber tube for suction.</li> <li>• Over flow safety device.</li> <li>• Power requirement: 220V, 50Hz.</li> <li>• Complete with suction nozzle and other standard accessories</li> </ul>	



**Category: Autoclaves / Ovens**

S#	Nomenclature	Specifications	Qty
1	Autoclave Automatic 100 Liters	<ul style="list-style-type: none"> <li>Minimum 5 sterilization cycles for (a) wrapped as well as unwrapped instruments, (b) flash sterilization, open, packed, liquids.</li> <li>It should have silicon rubber ring gasket in the door for locking. The closing and locking of the door should be completely automatic Auto draining facility.</li> <li>An alarm should be provided to ring after the total command is over Auto equalizer of pressure in the chamber for easy opening. Digital temperature and pressure gauges. Control panel to select cycle settings with LCD Display and water level indicator.</li> <li>Capacity app: <b>100</b>liters</li> <li>Pressure range: 2.5 Bars (121°C) to 3bars(134°C)</li> <li>There should also be a Mechanical Pressure release valve to release excess pressure. System should be operated with a high vacuum pump, integrated printer for printing of the reports. Should be supplied with a water de-mineralizer (Model must be mentioned) to be connected directly to the tap water.</li> <li>Autoclave should execute Vacuum test Bowie &amp; Dick test&amp; Helix Test.</li> <li>It should be supplied with the following accessories:-</li> <li>Tray Stand: 1No</li> <li>Trays: 10No's</li> <li>Bin (with lock): 1No</li> <li>All consumables required for installation and standardization of system to be given free of cost.</li> </ul>	
2	Autoclave Automatic 150 Liters	<ul style="list-style-type: none"> <li>Minimum 5 sterilization cycles for (a) wrapped as well as unwrapped instruments, (b) flash sterilization, open, packed.</li> <li>It should have silicon rubber ring gasket in the door for locking. The closing and locking of the door should be completely automatic Auto draining facility.</li> <li>An alarm should be provided to ring after the total command is over Auto equalizer of pressure in the chamber for easy opening. Digital temperature and pressure gauges. Control panel to select cycle settings with LCD Display and water level indicator.</li> <li>Capacity app: 150liters</li> <li>Pressure range: 2.5 bars (121°C) to 3 bars(134°C)</li> <li>There should also be a Mechanical Pressure release valve to release excess pressure. System should be operated with a high vacuum pump, integrated printer for printing of the reports. Should be supplied with a water de-mineralizer (Model must be mentioned) to be connected directly to the tap water.</li> <li>Autoclave should execute Vacuum test Bowie &amp; Dick test&amp; Helix Test.</li> <li>It should be supplied with the following accessories:-</li> <li>Tray Stand: 1No</li> <li>Trays: 10No's</li> <li>Bin (with lock): 1No</li> <li>All consumables required for installation and standardization of system to be given free of cost</li> </ul>	
3	Autoclave Automatic 200 Liter)	<ul style="list-style-type: none"> <li>Minimum 5 sterilization cycles for (a) wrapped as well as unwrapped instruments, (b) flash sterilization, and open, packed.</li> <li>It should have silicon rubber ring gasket in the door for locking. The closing and locking of the door should be completely automatic Auto draining facility.</li> <li>An alarm should be provided to ring after the total command is over Auto equalizer of pressure in the chamber for easy opening. Digital temperature and pressure gauges. Control panel to select cycle settings with LCD Display and water level indicator.</li> <li>Capacity app: 200liters</li> <li>Pressure range: 2.5 bar (121°C) to 3 bars (134°C)</li> <li>There should also be a Mechanical Pressure release valve to release excess pressure. System should be operated with a high vacuum pump, integrated printer for printing of the reports. Should be supplied with a water de-mineralizer (Model must be mentioned) to be connected directly to the tap water.</li> <li>Autoclave should execute Vacuum test Bowie &amp; Dick test &amp; Helix Test.</li> <li>It should be supplied with the following accessories:-</li> <li>Tray Stand: 1No</li> </ul>	

		<ul style="list-style-type: none"> <li>• Trays: 10Nos</li> <li>• Bin (with lock): 1No</li> <li>• Along with complete installation.</li> <li>• All consumables required for installation and standardization of system to be given free of cost.</li> </ul>	
4	Autoclave Horizontal type (100 liters)	<ul style="list-style-type: none"> <li>• Single door, high pressure, high vacuum autoclave for sterilizing hospital materials. Electrically operated within built electric steam generator with the unit. . System should be operated with a high vacuum pump within the unit.</li> <li>• Double jacketed, single door and designed with several automatic mechanical and control features that provide for safety. Door must be lined with silicone rubber gas kits (expansion type).</li> <li>• Temperature adjustable from 121o to 135oC.</li> <li>• Working pressure range from 2.5 bars to 3 bars.</li> <li>• <b>Sterilization cycles:</b></li> <li>• The autoclave residence time should not be less than 60 minutes at working temperature (inner chamber) of 121oC at a pressure of 2.5 bars).</li> <li>• For temperature of inner chamber of 135oC at a of pressure 3 bars the autoclave residence time should be not be less than 45 minutes.</li> <li>• Capacity: Approximately 100 liters.</li> <li>• Autoclave should be properly equipped with door safety locks, pressure gauges &amp; safety valves for chamber &amp; jacket.</li> <li>• Autoclave should have insulation jacket.</li> <li>• The unit should have a timer from 1to 60 minutes that may be used for process or turn- on and shut down timings.</li> <li>• With integral alarms that ring, flash, or otherwise display information when temperature set-points are exceeded or fallen below.</li> <li>• With Pressure safety valve, over-temperature limiter, door (lid) interlock, over pressure limiter.</li> <li>• Temperature and pressure gauges with safety valves</li> <li>• Air shall be removed from the sterilization chamber after loading the sterilizer by one or more pressure/vacuum pulsing for proper steam penetration either manually or automatically through the automatic control system</li> <li>• Low water protection with audio visual indicator</li> <li>• It should be supplied with the following accessories. <ul style="list-style-type: none"> <li>a. Baskets02Nos</li> <li>b. Trays 10Nos</li> <li>c. Heating element04Nos</li> </ul> </li> <li>• All infrastructural work including plumbing and electrical work will have to be done by the supplier. The hospital will only provide space and water outlet</li> </ul>	
5	Autoclave Horizontal (Capsule) type (150 liters)	<ul style="list-style-type: none"> <li>• Single door, high pressure, high vacuum autoclave for sterilizing hospital materials. Electrically operated within built electric steam generator with the unit. System should be operated with a high vacuum pump within the unit.</li> <li>• Double jacketed, single door and designed with several automatic mechanical and control features that provide for safety. Door must be lined with silicone rubber gas kits (expansion type).</li> <li>• Temperature adjustable from 121o to 135oC.</li> <li>• Working pressure range from 2.5 bars to 3 bars.</li> <li>• <b>Sterilization cycles:</b></li> <li>• The autoclave residence time should not be less than 60 minutes at working temperature (inner chamber) of 121oC at a pressure of 2.5 bars).</li> <li>• For temperature of inner chamber of 135oC at a pressure of 3 bars the autoclave residence time should be not be less than 45 minutes.</li> <li>• Capacity: Approximately 150 liters.</li> <li>• Autoclave should be properly equipped with door safety locks, pressure gauges &amp; safety valves for chamber &amp; jacket.</li> <li>• Autoclave should have insulation jacket.</li> <li>• The unit should have a timer from 1to 60 minutes that may be used for process or turn- on and shut down timings.</li> <li>• With integral alarms that ring, flash, or otherwise display information when temperature set-points are exceeded or fallen below.</li> <li>• With Pressure safety valve, over-temperature limiter, door (lid) interlock, over pressure limiter.</li> </ul>	

		<ul style="list-style-type: none"> <li>• Temperature and pressure gauges with safety valves</li> <li>• Air shall be removed from the sterilization chamber after loading the sterilizer by one or more pressure /vacuum pulsing for proper steam penetration either manually or automatically through the automatic control system</li> <li>• Low water protection with audiovisual indicator</li> <li>• It should be supplied with the following accessories. <ul style="list-style-type: none"> <li>a) Baskets 02Nos</li> <li>b) Trays 10Nos</li> <li>c) Heating element 04Nos</li> </ul> </li> <li>• All infrastructural work including plumbing and electrical work will have to be done by the supplier. The hospital will only provide space and water outlet</li> </ul>	
6	Autoclave Horizontal (Capsule) type (200 liters)	<ul style="list-style-type: none"> <li>• Single door, high pressure, high vacuum autoclave for sterilizing hospital materials. Electrically operated within built electric steam generator with the unit. . System should be operated with a high vacuum pump within the unit.</li> <li>• Double jacketed, single door and designed with several automatic mechanical and control features that provide for safety. Door must be lined with silicone rubber gas kits (expansion type).</li> <li>• Temperature adjustable from 121o to 135oC.</li> <li>• Working pressure range from 2.5 bars to 3 bars.</li> <li>• <b>Sterilization cycles:</b></li> <li>• The autoclave residence time should not be less than 60 minutes at working temperature (inner chamber) of 121oC at a pressure of 2.5 bars).</li> <li>• For temperature of inner chamber of 135oC at a of pressure 3 bars the autoclave residence time should be not be less than 45 minutes.</li> <li>• Capacity: Approximately 200 liters.</li> <li>• Autoclave should be properly equipped with door safety locks, pressure gauges &amp; safety valves for chamber &amp; jacket.</li> <li>• Autoclave should have insulation jacket.</li> <li>• The unit should have a timer from 1to 60 minutes that may be used for process or turn- on and shut down timings.</li> <li>• With integral alarms that ring, flash, or otherwise display information when temperature set-points are exceeded or fallen below.</li> <li>• With Pressure safety valve, over-temperature limiter, door (lid) interlock, over pressure limiter.</li> <li>• Temperature and pressure gauges with safety valves</li> <li>• Air shall be removed from the sterilization chamber after loading the sterilizer by one or more pressure/vacuum pulsing for proper steam penetration either manually or automatically through the automatic control system</li> <li>• Low water protection with audio visual indicator</li> <li>• It should be supplied with the following accessories. <ul style="list-style-type: none"> <li>a) Baskets 02No's</li> <li>b) Trays 10No's</li> <li>c) Heating element 04No's</li> </ul> </li> <li>• All infrastructural work including plumbing and electrical work will have to be done by the supplier. The hospital will only provide space and water outlet</li> </ul>	

### Surgical Instruments

**Note: All the instruments must be made of stainless steel. All die made with hidden joints and leak proof. Manufacturers mark must be indicated on all instruments.**

**Selection must be subject to sample.**

S#	Item Name	Specifications	Qty
1	All metal bladder syringe		
2	Allies forceps 6"		
3	Allies forceps long		
4	Amputation sets complete		
5	Aneurysm needle curved to the right		
6	Artery forceps 4"		
7	Artery forceps 5" pointed ss		
8	Artery forceps 6"		
9	Artery forceps 6" SS curved		
10	Artery forceps 8" straight		
11	Artery forceps 9" long curved		
12	Artery forceps 9" long pointed curved		
13	Artery forceps 9" long straight		
14	Bandy turin verbal forceps 9.5 long		
15	Basin SS		
16	Basin stand		
17	Berkleys Retractor		
18	Blood Groping Viewing Box	Set of Anti A, B, D. 10ml each	
19	Blood Groping Viewing Box	Set of Anti A, B, D. 10ml each	
20	Bohlerieg tight splint different size		
21	Bone cutting forceps		
22	Bone Nibbler		
23	Bone Ranger (Oral Surgery)		
24	Goggles Set of 12		
25	Bowel SS large		
26	Bowel SS small		
25	Bozemansfirst his catheter for washing drum vessel		
26	Bozemans needle holder 7.5"		
27	BP blade box		
28	BP handle		
29	BP Scalpel Handle for Blad-15 oral surgery		
30	Brand splinters tendon stopper		
31	Brewers or gives specula 3 size		
32	Brims extension frame for long D sizes		
33	Burner		
34	Buckets		
35	Cartridge Syringes with aspirating facility		
36	Chart Holder		
37	Cheatle Sterilizer forceps10" long		
38	Check Retractor (Oral Surgery)		
39	Chisel 6 size		
40	Containers for Sputum Culture		
41	Containers for urine Culture		
42	Cremel double Retractor		
43	Curette Oral Surgery		
44	Curved light forceps for stone 8,6,5" long		
45	Danis Browns Retractor Universal		
46	Daring Tube Shapes 6 sizes 8,9,10,12,14,15 & 16		
47	Dilating complete set		
48	Dissecting forceps plain		
49	Ear syringe		
50	Elevator Angular Pair		
51	Elevator cross bar pair		
52	Elevator pair of cryers (Triangular Shape)		

53	Elevator straight		
54	Entrap Uterine Canals		
55	Eroded Mattable probe ended director 6.5" long		
56	Eve's intestinal forceps 9" long		
57	Examination Mirror		
58	Examination tweezers		
59	Extraction Forceps upper Interior		
60	Extraction forceps lower BDR		
61	Extraction forceps lower interior		
62	Extraction forceps lower molar		
63	Extraction forceps lower pre-molar		
64	Extraction Forceps upper BDR		
65	Extraction Probe Upper Molar		
66	Extraction Probe Upper Pre Molar		
67	Face mask all sizes set	Branded, Good quality, disposable (Imported)	
68	Female Dilator		
69	Female metallic catheter		
70	Galantian squotum sound		
71	Gallium Hysterectomy forceps curved 11x1		
72	Gallium Hysterectomy forceps straight 1x2		
73	Gland forceps		
74	Gadless urine dilator	good material adjustable	
75	Hammer Heavy		
76	Hangers models double ended cervix dilation		
77	HerocsTurin uterus fine semi blunt	Best quality, good material,	
78	Hurry Fenwicks Retractor		
79	Instrument cabinet large size		
80	Intestine Holding forceps		
81	Introducer for Catheter		
82	Iron Safe	good material, adjustable	
83	Kelley's Retractor	good material,	
84	Kidney pedicle 9.5" long	good material,	
85	Kidney tray SS Size	good material,	
86	Laces Retractor		
87	Lamp cradle 3 size		
88	Lanes stomach holding forceps 8"		
89	Lange back's Retractor L Shape oral surgery		
90	Legel Face Mask		
91	Lens Tissue forceps 8"		
92	Legenback Retractor		
93	Lion forceps v sizes		
94	Lockport memory fistula director pattern 1,2,3,4		
95	Main Gut intestinal forceps		
96	Mason Chained file dissector with probe 5.5"		
97	Mayas Safety Pins		
98	Mayo Curved 8.5" long		
99	Mayo instrument stand		
100	Mayo Needle Holer 7.5"		
101	Mayo Straight Scissors		
102	Megills forceps		
103	Metozone bum scissors 8.5"		
104	Mirrors Retractor		
105	Moore boil spoon with handle		
106	Mouth prop oral surgery		
107	Nail extractor		
108	Needle holder large size		

109	Nose speculum		
110	Nose Vigilant forceps 13.5"		
111	Oeatomes 4 sizes		
112	Oller Retractors		
113	Ordinary mask nasal catheters		
114	Parser excision clamp 9"		
115	Pelivis meter		
116	Periosteal Elevator Oral surgery		
117	Periosteum Elevator		
118	Perforators		
119	Pin cutter		
120	Plaster of paris knife		
121	Plaster table		
122	Plates Stainless steel full size		
123	Plates Stainless steel medium size		
124	Plates Stainless steel Quarter size		
125	Pool S Abdominal Suction Tube		
126	Position Aspirator		
127	Preat stainless steel		
128	Precursor		
129	Randall's renal calculus curved	Best quality, good material,	
130	Rectal speculum large / small		
131	Rendell barker face mask all sizes	Good quality, disposable	
132	Rectangular tray SS		
133	Retro-grate boggles size 4/7, 6/9, 8/11		
134	Richardson Appendectomy Set Retractor		
135	Same ducks abill specula double ended		
136	Scissors oral surgery		
137	Scissors Surgical V. size		
138	Suction Bowl stand	<ul style="list-style-type: none"> <li>• Standard Bowl Single</li> <li>• Stainless steel stand to support 1 X 35 cm diameter.</li> <li>• Stainless steel bowl,</li> <li>• Mounted on 4 X anit-static swivel castors</li> </ul>	
139	Self-Retracting Abdominal		
140	Sim forceps		
141	SIMMs duck bill specula single ended		
142	Single Hocks Blunt		
143	Singles vigilant dressing forceps with small sector		
144	Skin Retractor		
145	Skin small Retractor		
146	Small Needle Holder oral surgery		
147	Smith forceps hare curded left / right		
148	Sound Bladder		
149	Spittoons stainless steel		
150	Sponge holder forceps large size		
151	Sponge holder with curved older with curved handle 8"		
152	Sponge holder with spring handle 16"		
153	Spot light		
154	Suction bowel stand		
155	Surgeon revolver steel stool		
156	Surgical Blades	To have an adjustable blade control with 4 comb attachments.	
157	Tendon hook		
158	Tenotomy knife Blunt ended	From good quality glass material	
159	Tenotomy knife sharp pointed	Best quality, good material,	
160	Tongue depressor		
161	Toothed dissecting forceps oral surgery		
162	Torch hand		

163	Tourniquet		
164	Towel clip		
165	Tracer Canola		
166	Tray with cover large size		
167	Tubule inflation apparatus		
168	TV for Dining Hall		
169	Urethral V S		
170	Urinal stainless steel male and female		
171	Uterine curette blunt and sharp		
172	Vigilant dressing forceps 9.5"		
173	Wire cutting forceps		
174	Wallons Gesture Eterestomy clamp 13"		
175	Ward nephrolithotomy forceps		
176	Wash stand with 2 basin side by side		
177	Waxen Jones birth fracture frame		
178	Tendon Hammer		
179	wire Brush		
180	Tuning Fork		
181	Teflon Injection Burning Syringe		
182	Femoral Distractor		
183	Hand Chulk		
184	Pin Cutter		
185	Plate Bending Press	<ul style="list-style-type: none"> <li>• Stainless steel case, perforated</li> <li>• Upper tray for instruments(stainless steel)</li> <li>• Lower tray for instruments(stainless steel)</li> <li>• Triple Drill guide with fixed angle for seating chisel</li> <li>• Reamer</li> <li>• Chisel guide with adjustable angle for Seating Chisel</li> <li>• Seating chisel (For preparing blade Channel)</li> <li>• Inserter/Extractor (With adjustable Angled)</li> <li>• Impactor for Plates</li> <li>• Slotted Hammer</li> <li>• Triangular positioning Plate (90 / 50 / 40DGR)</li> <li>• Triangular Positioning Plate (80 / 70 / 30DGR)</li> <li>• Triangular Positioning Plate ( 100/ 60 / 20 DGR)</li> <li>• Condylar Plate Guide.</li> </ul>	
186	Jex Thyroid Retractor hooking nut		
187	Prostate (Bladder) Self Retaining Retractor		
188	Thyroid Retractor		
189	Vaginal Speculum		
190	Amalgam Plunger filling		
191	Bone Rongers (Oral Surgery)		
192	Burnishing Filling		
193	Cartridge Syringe with Aspirating Facility		
194	Cellulose or Plastic Strip		
195	Cement Spatula		
196	Excavator Filling		
197	Glass Slab		
198	Instrument for Filling		
199	Mortar & Pastel		
200	Steel Matrix Bands Different Size		
201	Bone Marrow Needle Paeds/Adult		
202	Trephine Biopsy Needle		
203	Abdominal Retractor	Consisting Of:	

		1 X Retractor With 2 Pairs Exchangeable Valves 1 X Gusset Retractor 1 X Denis - Browne Retractor With 4 Blades	
204	Stand for dressing iron		
205	Stand for three sterilizer drum with drained	Make of Steel Pipe dia	
206	Basin S.S.	Best Quality, Good material	
207	Basin Stand	Best Quality, Good material	
208	Dressing Drum	Trays SS 10" x 12" Artery forceps peon 6" Sponge holding forceps 10" Needle holder 6" Plain dissecting forceps 7" Tooth dissecting forceps 7" Scissors Assessing 6" kidney tray medium size Along with Container	
209	Dressing drum large size	Trays SS 12" x 18" Artery forceps peon 6" Sponge holding forceps 10" Needle holder 6" Plain dissecting forceps 7" Tooth dissecting forceps 7" Scissors Assessing 6" kidney tray medium size Along with Container	
210	Bone Marrow Aspiration Needle	<ul style="list-style-type: none"> <li>Manufacturer's mark must be indicated on all instruments</li> </ul>	
211	Bone trephine needle	<ul style="list-style-type: none"> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
212	Chest Intubations Set	<ul style="list-style-type: none"> <li>Manufacturer's mark must be Indicated on all instruments.</li> </ul>	
213	L.P. Bone marrow	<ul style="list-style-type: none"> <li>Manufacturer's mark must be Indicated on all instruments.</li> </ul>	
214	Liver biopsy needle	<ul style="list-style-type: none"> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
215	Liver/Biopsy 3 Way Aspiration Needles	<ul style="list-style-type: none"> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
216	Mucus Extractor	<ul style="list-style-type: none"> <li>Manual, Manufacturer's mark Must be indicated on all instruments.</li> </ul>	
217	Ordinary Mask Nasal Catheters	<ul style="list-style-type: none"> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
218	Pleural Biopsy Needle	<ul style="list-style-type: none"> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
219	Point's Aspirator	<ul style="list-style-type: none"> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
220	Electric Sterilizer	<ul style="list-style-type: none"> <li>Instrument sterilizer to have seamless construction,</li> <li>Should be made of medical grade stainless steel.</li> <li>Should have thermostatically controlled heating through easily replaceable heating element of 1kW</li> <li>Size approximately 18"Lx12"Wx9"H</li> <li>Should have handles for unit and lid</li> <li>The lid to be rigidly constructed to prevent warping hinged to the body and provided with a stop to keep it in the upright position.</li> <li>The instrument tray to be constructed of stainless steel and fixed with drip handles.</li> </ul>	
	True Cut Biopsy Needle	<ul style="list-style-type: none"> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	



	Tongue Depressor Steel	Tongue Depressor Steel	
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**Hollow ware**

**Note: All the instruments must be made of stainless steel. All die made with hidden joints and leak proof. Manufacturers mark must be indicated on all instruments.**

**Selection will be on sample.**

S#	Nomenclature	Specifications
1	Basin S.S	Standard Size, Best Quality
2	Basin Stand	
3	Basin trolley with stand	
4	Basin wash hand with stand	
5	Bed Pan S.S	
6	Bowel S.S large size	
7	Bowel S.S small size	
8	Bowel with lid SS	
9	Bucket EI	
10	Drums for linens	
11	G.S Cups Medium & Large	
12	Gauze drum small size	
13	Hand washing basin with stand	
15	Kidney tray large size	
16	Kidney tray S.S	
17	Rectangular tray S.S	
18	S.S Buckets	
19	Scrub Unit	
20	Spittoon S.S	
21	Stand for 3 sterilize drum with drained	
22	Stands for drums	
23	Steel box large size	
24	Steel square trays with cover non-magnetic 7x10", 10x12" & 12x16" (2 each)	
25	Tray stainless steel	
26	Tray with covers large size	
27	Urinal Stainless steel male & female	
28	Wash stand with two basin side by side	

**Category – Medical Gasses**

**Selection will be on sample**

S#	Nomenclature	Specifications	Qty
1	Oxygen, Nitrous Oxide CO2 & air 240 Cft cylinder with trolley	<ul style="list-style-type: none"><li>Flow meter 0-15L/min with regulator humidifier &amp; pressure gauge up 3500 PSI. Connected directly to the Cylinder.</li><li>Complete with regulator, gauge and standard accessories.</li><li>Carrier for cylinder with two wheels.</li><li>The cylinder must be of standard quality.</li><li>BOC/Equivalent testing certificate must be provided</li></ul>	
2	Oxygen & Nitrous Oxide 48 Cft cylinder with gauge & trolley	<ul style="list-style-type: none"><li>Flow meter 0-15L/min with regulator humidifier &amp; pressure gauge up 3500 PSI. Connected directly to the Cylinder.</li><li>Complete with regulator, gauge and standard accessories.</li><li>Carrier for cylinder with two wheels.</li><li>The cylinder must be of standard quality.</li><li>BOC/Equivalent testing certificate must be provided</li></ul>	
3	Oxygen Cylinder Key	Good quality Oxygen Cylinder Key for 240 & 48 CFT cylinders	
4	Oxygen Flow Meter	<ul style="list-style-type: none"><li>Direct fitted to the Outlet BOC/Equivalent, included with the Humidifier.</li><li>Nickel-plated brass base and body</li><li>Clear shroud</li><li>Expanded lower scale 0-5Lpm</li></ul>	
5	Oxygen gauge	Complete with regulator, gauge and standard accessories.	

**Category: Endoscopy**

S#	Nomenclature	Specifications	Qty
1	Bronchoscope Flexible full set with all accessories	<p><b>Bronchoscope:</b></p> <ul style="list-style-type: none"> <li>The working length of the fiber scope should be 60 cm.</li> <li>The outer diameter should be 3.8mm or better.</li> <li>Range of bending at the tip should be minimum 180 degree up and 130 degree down approx.</li> <li>Working Channel diameter: 2.02 to 2.2 mm</li> <li>Compatible with camera head.</li> <li>Brilliant high resolution video images (model of CCD camera must be mentioned).</li> <li><b>LIGHT SOURCE:</b></li> <li>Compatible light source from the same manufacturer</li> <li>Automatic light adjustments to maintain optimum brightness</li> </ul>	
2	Cystoscope flexible set with light source complete	<p><b>CYSTOSCOPE FLEXIBLE SET</b></p> <ul style="list-style-type: none"> <li>Working length: 37 cm or better.</li> <li>Distal Tip: 146Fr(4.8mm to 4.9 mm).</li> <li>Working channel: 6.4 Fr(2.1mm) or better</li> <li>Active Deflection: 180° to 220° up, 170° down or more</li> <li>With Passive Deflection.</li> <li>Light Carriers: 2,</li> <li>Field of view: 110° to 120° minimum,</li> <li>Depth of focus, 5-50 mm.</li> <li>Complete with grasping forceps,</li> <li>Fiber optic cable.</li> <li>Instrument lubricant.</li> <li>Biopsy port seals, cleaning brush &amp; carrying case</li> <li>Complete light source from the same manufacturer.</li> </ul>	
3	Endoscope Gastro duodenal	<ul style="list-style-type: none"> <li><b>HIGH DEFINITION GASTRO-VIDEO SCOPE</b></li> <li>High definition</li> <li>Compatible with standard set of accessories.</li> <li>Field of view: 140mm or better</li> <li>Working length: 1030mm or better</li> <li>Outer diameter: 9.8 mm</li> <li>Depth of field 4 to 100 mm or better on either side</li> <li>Angulation Range Up 210° Down 90° or better on either side Right 100° Left 100°</li> <li>Channel Diameter 2.8mm</li> <li>Complete with xenon light source (from same manufacturer) and video processor.</li> <li>With medical grade monitor 21" or better</li> <li><b>Resolution:</b> 1280x1024 or better.</li> <li><b>Brightness:</b> 300 Cd/m2 or better.</li> <li><b>Contrast Ratio:</b> 2000:1 or better With <ul style="list-style-type: none"> <li>Brightness stabilization</li> <li>Back light sensor.</li> <li>Power saving mode &amp;</li> <li>USB Port.</li> </ul> </li> <li>Accessories: AC power cord, Signal Cable, USB cable.</li> <li>Along with trolley.</li> </ul>	
4	Laparoscope machine for Gynae /OBS	<p><b>Laparoscopy System</b></p> <p><b>High definition three chip / Camera System</b></p> <ul style="list-style-type: none"> <li>Camera Console 220v with Universal Coupler and Autoclavable Camera Head</li> <li>Pure Digital Signal with high definition video 2 Mega pixel or</li> </ul>	

		<p>better (native resolution)</p> <ul style="list-style-type: none"> <li>Progressive scan technology both on camera head and console</li> <li>Brightness Control on Console and camera head</li> <li>Digital Zoom (x2.5) and White Balance Control on Camera Head</li> <li>Integrated Gain/Shutter / Enhancement with automatic brightness control</li> </ul> <p><b>Video Output-</b></p> <ul style="list-style-type: none"> <li>Two DVI outputs</li> </ul> <p><b>Automatic light source (From same manufacturer)</b></p> <ul style="list-style-type: none"> <li>220volt, 300 watt. Xenon Bulb (with one spare bulb)</li> <li>Bulb working life 500Hrs</li> <li>Light Adjustment</li> <li>Stand By Mode</li> <li>Universal Jaw Assembly branded</li> <li>Fiber Optic Cable with adapter</li> </ul> <p><b>FIBER OPTIC CABLE</b></p> <ul style="list-style-type: none"> <li>4.5 to 6.5mm x 240 cm or better Snap fit cable</li> </ul> <p><b>MONITOR</b></p> <ul style="list-style-type: none"> <li><b>Quantity: 2</b></li> <li>24" or better medical grade flat Panel Monitor</li> <li>High Definition</li> </ul> <p><b>Resolution:</b> 1280x1024 or better.</p> <p><b>Brightness:</b> 300 Cd/m2 or better.</p> <p><b>Contrast Ratio:</b> 2000:1 or better With</p> <ol style="list-style-type: none"> <li>Brightness stabilization</li> <li>Back light sensor.</li> <li>Power saving mode &amp;</li> <li>USB Port.</li> </ol> <p>Accessories: AC power cord, Signal Cable, USB cable.</p> <p><b>INSUFFLATOR</b></p> <ul style="list-style-type: none"> <li>40 Liter of high flow, Microprocessor controlled unit</li> <li>Soft approach pressure control for safe recovery of abdominal pressure</li> <li>Gas heating</li> <li>LCD based central display monitor</li> <li>Audio visual warning signals</li> </ul> <p><b>LAPAROSCOPES, Fully autoclavable with working length 300 mm or better</b></p> <ul style="list-style-type: none"> <li>Wide angled distortion free view</li> <li>Universal adaptor for other light sources</li> <li>0 degree, 10mm,</li> <li>30 degree, 10mm,</li> <li>0 degree, 5mm</li> </ul> <p><b>Tocars:</b></p> <ul style="list-style-type: none"> <li>5 mm 03Nos</li> <li>10 mm 03Nos</li> </ul> <p><b>Scissor:</b> As per working length</p> <p><b>Grasping forceps</b> 02Nos</p> <p><b>Grasping and dissecting forceps:</b> 02 Nos</p> <p><b>L Hook electrode:</b> 01Nos</p> <p><b>Universal Monopolar cable:</b> 01No</p> <p><b>Insufflations needle:</b> 01No</p> <p><b>Suction/irrigation cannula</b> 01No</p> <p><b>Clip applicator:</b> 01No</p> <p><b>Needle Holder:</b> 01Nos</p> <p><b>Uterus Manipulator:</b> 01No</p> <p><b>Knot Pusher:</b> 01No</p>	
5	Naso-pharyngoscope with suction & forceps	<ul style="list-style-type: none"> <li>Flexible Naso-pharyngo-laryngoscope for universal application, Immersible.</li> <li>Outer dia: 3.5mm,</li> <li>Working length: 300mm to 400mm,</li> <li>Total Length: 650mm or better</li> <li>Deflection up/down: 130°/130°</li> <li>Depth of Focus: 5mm to 50 mm,</li> </ul>	

		<ul style="list-style-type: none"><li>Field of view: 75 ° -95°,</li><li>Instrument Channel: 2 to 2.5mm dia</li><li>Complete with compatible light source and fiber optic cable (From same manufacturer).</li></ul>																									
6	Oesophagoscope instruments set	<ul style="list-style-type: none"><li>Esophagoscopetube, Appr. Size 1, 6x8 mm (h xw)</li><li>WL: 350mm.</li><li>Cap with window, proximal illumination insert, Magnifier.</li><li>Universal Cap, Straight Handle, Double bellows,</li><li>Foreign Body Forceps, alligator jaws, WL: 450mm.</li><li>Universal Forceps, WL: 450mm.</li><li>Biopsy Forceps, spoon shaped, WL: 450mm.</li><li>Retrograde biopsy forceps, WL: 450mm.</li><li>Small tumor forceps, cutting WL: 450mm.</li><li>Rotation forceps for hard foreign bodies WL: 450mm.</li><li>Grasping forceps, for soft foreign bodies WL: 450mm.</li><li><b><u>Flexible portion</u></b></li><li>Working Length:700mm,</li><li>Diameter of Flexible Part: 13 mm.</li><li>Instrument Channel: 3.7 mm.</li><li>Deflection (Up/Down):180/90 deg.</li><li>Deflection (Right/Left):110/110 deg.</li><li>Depth of focus: 5-100mm.</li><li>Biopsy Forceps, dia2.1mm.</li><li>Injector Cannula.</li><li>Compatible Light Source and fiber optic cable (From same manufacturer).</li><li>Complete with all accessories.</li></ul>																									
7	Sinus Endoscopy set with proof puncture needles	<ul style="list-style-type: none"><li>Flexible Sino scope for universal application also in pediatric, immersible,</li><li>Outer Dia, 3.5mm.</li><li>WL400mm or better.</li><li>Total Length 650 mm.</li><li>Dia of Flexible Section3.6mm.</li><li>Deflection up/down180°/90°</li><li>Depth of Focus 3-50mm</li><li>Field of view 95°or better.</li><li>Instrument Channel 1.1 mm Dia.</li><li>With proof puncture needles.</li><li>With compatible light source(From same manufacturer) and fiber optic cable.</li></ul>																									
8	Bronchoscope Rigid	<p><b><u>Size:</u></b></p> <table><tr><td>• 3mm</td><td>WL 200mm or better</td></tr><tr><td>• 4mm</td><td>WL 215mm or better</td></tr><tr><td>• 5mm</td><td>WL 245mm or better</td></tr><tr><td>• 5.5mm</td><td>WL 265mm or better</td></tr></table> <p><b><u>Forceps:-</u></b></p> <p>According to the bronchial / tracheal tubes</p> <table><tr><td>• Alligator FB Forceps</td><td>1</td></tr><tr><td>• Biopsy Forceps</td><td>1</td></tr><tr><td>• Fenestrated Forceps</td><td>1</td></tr><tr><td>• Peanut Forceps</td><td>1</td></tr><tr><td>• Magnetic Extractor</td><td>1</td></tr><tr><td>• <b>Optical biopsy forceps</b></td><td><b>1</b></td></tr><tr><td>• <b>Optical grosping forceps</b></td><td><b>1</b></td></tr><tr><td>• <b>Aspiration catheter</b></td><td><b>10</b></td></tr></table> <p><b><u>Accessories</u></b></p> <ul style="list-style-type: none"><li>Adapter with sliding glass window plug, sealing cap, notched lens and key hole opining, movable.</li><li>Plug for ventilation attachment of bronchoscope.</li><li>Adaptor for Bronchoscope to any type of pediatric respiration equipment.</li></ul>	• 3mm	WL 200mm or better	• 4mm	WL 215mm or better	• 5mm	WL 245mm or better	• 5.5mm	WL 265mm or better	• Alligator FB Forceps	1	• Biopsy Forceps	1	• Fenestrated Forceps	1	• Peanut Forceps	1	• Magnetic Extractor	1	• <b>Optical biopsy forceps</b>	<b>1</b>	• <b>Optical grosping forceps</b>	<b>1</b>	• <b>Aspiration catheter</b>	<b>10</b>	
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		<b><u>Light Source</u></b> <ul style="list-style-type: none"> <li>• Compatible Light Source(From same manufacturer).</li> <li>• Automatic / Manual Light Adjustment.</li> <li>• Along with fiber optic cable.</li> </ul>	
9	Sigmoidoscope with universal lighting	<ul style="list-style-type: none"> <li>• <b>Features of Sigmadioscope:</b></li> <li>• <b>Specifications and Qualifications:</b> <ul style="list-style-type: none"> <li>• Angle of view field: 100° or more</li> <li>• Diameter of Distal End: ø13mm or more</li> <li>• Diameter of Insertion Tube: ø12.8mm or more</li> <li>• Range of Tip Bending: 180 °U, 180°D, 160 °R, 160 °L</li> <li>• Depth of View: 3-100mm or more</li> <li>• Diameter of Instrument Channel: ø3.2mm or more</li> <li>• Working Length: 1300mm or more</li> <li>• Working distance 56mm or more</li> </ul> </li> <li>• <b><u>Light Source:</u></b></li> <li>• Along with compatible light source (from the same manufacturer).</li> <li>• Power voltage and frequency ~ 220V/50HZ Illumination &gt;70000 Lux or better Color temperature &gt;3200 Deg K Air pump: 0.03MPa= Pressure=0.06Mpa;</li> </ul>	

S#	Nomenclature	Specifications	Qty
1	Automated Electrolyte Machine	<p>Open system consisting of :</p> <ul style="list-style-type: none"> <li>• Electrolyte analyzer for Na, k, Ca, Cl, Li, Ph</li> <li>• For whole blood, plasma, serum, urine</li> <li>• Sample volume: - blood / plasma / serum minimum 25 to 200uL</li> <li>• Urine (diluted) 50-250 micro liters</li> <li>• Digital display</li> <li>• Stat facility</li> <li>• Auto sampler</li> <li>• Self-diagnostics programmed; system monitoring and maintenance modes</li> <li>• Patient results storage: 120 samples or better</li> <li>• QC data storage : 20 or better</li> <li>• Integral printer</li> <li>• Calibration: Automatic</li> <li>• Calibrators, controls, reagents, consumables for startup.</li> </ul>	
2	Automated ESR System	<p>Fully automated ESR analyzer:</p> <ul style="list-style-type: none"> <li>• LCD screen</li> <li>• Internal thermal printer</li> <li>• Easy operator software, Calibration &amp; Controls</li> <li>• Results time: 30 seconds or less</li> <li>• Result / Hour: 130 samples/hour or better</li> <li>• EDTA blood sample volume: 180 µl or less with automated withdrawal per test</li> <li>• Simple position: 20 or better</li> </ul>	
3	Manual ESR System	<p>E.S.R. APPARATUS WESTERGREENS TYPE BLOOD SEDIMENTATION APPARATUS acc. To Wintergreen, metal support, made of stainless steel, stable construction with special springs, with pipettes and specimen tube with rubber stopper (also for rapid method), for 10 examinations</p>	
4	Blood Screening Counter	<ul style="list-style-type: none"> <li>• 8 keys laboratory counter with totalizer</li> <li>• To facilitates leukocyte differential count including basophils, eosinophil's, lymphocytes, monocytes, myelocytes, segmented and band (neutrophils)</li> <li>• Each key to register a unit corresponding to the identified leukocyte.</li> <li>• After having counted 100 units of leukocytes a bell should sound and the percentage of every type of leukocytes can be directly read.</li> <li>• Hundred steps for one thousand.</li> </ul>	
5	Arterial Blood Gas Analyzer	<ul style="list-style-type: none"> <li>• Microprocessor based system</li> <li>• Control panel with easy setting and monitoring</li> <li>• Easy 2 point calibration</li> <li>• Calibration history at least 24 hours</li> <li>• Easy changing access to the Electrodes and the solutions</li> <li>• Automatic sample recognition and sampling</li> <li>• Sampling techniques – whole blood</li> <li>• <u>Sampling volume</u></li> <li>- syringe– less than 100 micro lit</li> <li>- capillary– less than 70 micro lit</li> <li>- Micro sample mode – less than 40 micro lit</li> <li>• Analysis time – shall be less than 60secs</li> <li>• <u>Measurement ranges</u></li> </ul>	



		<ul style="list-style-type: none"> <li>- Measured parameters</li> <li>- PH –6.0-8.0 or better</li> <li>- H+ 10.0-500.0mmol/l or better</li> <li>- pO2 0.0-800.0mmHg or better</li> <li>- pCO2– 5.0-250.0 mmHg or better</li> <li>- Barometric pressure – 400.00-800.0mmHg</li> <li><u>Calculated parameters</u></li> <li>- HCO3 act – 0.0-60.0mmol/L</li> <li>- HCO3 std– 0.0-60.0mmol/L</li> <li>- BE vv+/-30mmol/L</li> <li>- tCO2– 0.0-60.0mmol/L</li> <li>- O2 sat– 0.0-100.0%</li> <li>- O2 –0.0-40.0%</li> <li><u>Entered parameters</u></li> <li>- Temperature – 10° to45°C</li> <li><u>Temperature corrected parameters</u></li> <li>- pH(T)6.0-8.0</li> <li>- H+ (T) 10.0-500.0mmol/L</li> <li>- pO2 (T) 0.0-800.0mmHg</li> <li>- pCO2 (T)BE vt5.0-250.0 mmHg</li> <li>Power Requirement</li> <li>• Operate at 220 VAC +/-10%</li> <li><u>Accessories</u></li> <li>• Include all standard accessories</li> <li>• Include reagent for immediate start up and for 500 tests as recommended by manufacturer</li> </ul>	
6	Centrifuge(Bench Top) (for DHQ level Hospitals)	<p>Consisting Of:</p> <ul style="list-style-type: none"> <li>• Angle Rotor Maximum Speed 6000rpm; Rcf6250g</li> <li>• Timing Up To 99 Minute; Continuous</li> <li>• Microprocessor controlled.</li> <li>• Programmable By Keypad; 32 Program storage</li> <li>• Digital Display of Program Speed, Timing, Braking.</li> <li>• Lid Safety Interlock</li> <li>• Angle Rotor, Maximum Capacity 24 X 15ml, 24 X 7ml (With Adaptor)</li> </ul>	
7	Laboratory Centrifuge (for Category C or D level Hospitals)	<ul style="list-style-type: none"> <li>• Bench top centrifuge machine with angle rotor</li> <li>• Brushless motor</li> <li>• Noiseless and vibration free (under 60db)</li> <li>• Maximum speed upto 6000 rpm</li> <li>• Digital control of timing up to 99 min</li> <li>• Digital display of speed, timing</li> <li>• Lid safety interlock</li> <li>• 12x15 ml tube, fixed angle rotor</li> <li>• Adaptors 6-10ml</li> </ul>	
8	Laboratory Centrifuge (for RHC Level)	<ul style="list-style-type: none"> <li>• Bench top centrifuge machine with angle rotor</li> <li>• Brushless motor</li> <li>• Noiseless and vibration free (under 60db)</li> <li>• Maximum speed up to 6000 rpm</li> <li>• Digital control of timing up to 99 min</li> <li>• Digital display of speed, timing</li> <li>• Lid safety interlock</li> <li>• 6x15 ml tube, fixed angle rotor</li> <li>• Adaptors 4-10ml</li> </ul>	
9	Fully Automated chemistry Analyzer	<ul style="list-style-type: none"> <li>• Open Reagent System</li> <li>• Microprocessor based windows operated system</li> <li>• Samples / Hour: 200 or better tests, up to 320 or better tests/hr with ISE.</li> <li>• Sample Tray with 20 or more sample positions for primary tubes and test tubes.</li> <li>• Sample Volume: 2 µL – 30 µL.</li> <li>• Probe Sensors: Liquid level detection and collision protection.</li> <li>• Probe cleaning: Automatic washing.</li> </ul>	

		<ul style="list-style-type: none"> <li>Wavelengths: 340nm, 405nm, 450nm, 492nm, 505nm, 546nm, 578nm, 620nm, 670nm, 700nm (10 positions)</li> <li>Absorbance Range: 0.0001 Abs units at 1.0 Abs.</li> <li>Data Storage: 1800 or more (patient results) 50,000 or more (test results)</li> <li>Port: RS-232.</li> <li>220 V, 50 Hz AC operated.</li> <li>With external printer (Model must be mentioned)</li> </ul> <p><b><u>Accessories</u></b></p> <ol style="list-style-type: none"> <li>Tubes 01 set (50 Tubes)</li> <li>Fuse 04 Sets</li> <li>Extra Lamp 03</li> <li>User manual</li> <li>Operation Software</li> </ol>	
10	Semi-Automated Chemistry Analyzer	<ul style="list-style-type: none"> <li>Reagent open system</li> <li>Easy keypad operation with LCD Display.</li> <li>Wavelengths range is 340-670nm, 07 filters and one free position, supports flow cell and cuvette mode.</li> <li>Analytical models include kinetic, fixed time. Bi-chromatic end point with or without reagent blank or sample blank, linear or non-linear calibration curves.</li> <li>Upto 1000 test results can be stored.</li> <li>Excellent QC function, 02 controls per test.</li> </ul> <p><b><u>Specification:-</u></b></p> <ul style="list-style-type: none"> <li>Absorbance Range -0.500-3.00 Abs.</li> <li>Resolution 0.001 Abs (displayed)</li> <li>Light sources: Halogen lamp.</li> <li>□ Wavelengths: 340,405, 500, 546, 578, 620,670, one free position.</li> <li>Wavelength Accuracy: <math>\pm 1\text{nm}</math> to <math>\pm 3\text{nm}</math></li> <li>Band Width: <math>&lt; 8\text{nm}</math>.</li> <li>Flow Cell: Metal – quartz flow cell.</li> <li>Temperature Control: <math>37^{\circ}\text{C}</math>, <math>\pm 0.1^{\circ}\text{C}</math> and ambient</li> <li>Display: LCD Display.</li> <li>Output: Internal Printer.</li> <li>Interface: Rs-232 serial cable.</li> <li>One extra Lamp.</li> </ul>	
11	Deionizer	<ul style="list-style-type: none"> <li>Automatic regeneration after manual initiation.</li> <li>Constant monitoring of final water quality.</li> <li>Solid-state reliability for trouble-free service.</li> <li>Automatic shut-off in event of power failure.</li> <li>Compact, non-corrosive components.</li> <li>Convenient, modular construction.</li> <li>Easy, economical installation</li> <li>Conductivity of water <math>0-30\mu\text{S}/\text{m}</math></li> <li>20 to 30 liters per hour</li> </ul>	
12	Distillation water assembly	<ul style="list-style-type: none"> <li>Horizontal thick wall heat resistant Glass boiler fitted with 3 KW chromium plated heater.</li> <li>High efficiency coil condense ensures low temperature, high output quality</li> <li>Distillate of conductivity 03 to <math>04\mu\text{S}/\text{m}</math>.</li> <li>Compact construction suitable for bench and wall mounting.</li> <li>Screw threads connectors for easy fitting or removal of hose safely.</li> <li>Built-in constant level device with Schott Ventura-Nova Valve for drainage provides easy de scaling without dismantling.</li> <li>Safety thermostat</li> <li>Distilled output: 10 Liters or better per 24 hours single</li> </ul>	

		distilled. <ul style="list-style-type: none"> <li>• PH of water 5 to10</li> <li>• Power Supply: 220v, 50 Hz Single Phase.</li> </ul>	
13	Elisa Machine (Reader, incubator shaker and Washer) Open System/ Programmable	Consisting Of The Following Components. For micro plate assay. <u>PLATE READER</u> <ul style="list-style-type: none"> <li>• Eight channel vertical light path filter photometer</li> <li>• End point and kinetic reading modes</li> <li>• Software for calculation modes</li> <li>• Storage for up to 96 assay protocols</li> <li>• Range 400 to670nm</li> <li>• Bandwidth upto 10nm</li> <li>• Accuracy <math>\pm 2\%</math></li> <li>• Precision 0.5%</li> <li>• Reading speed 5 secs/ plate or better</li> <li>• RS232 interface or USB interface</li> </ul> <u>With Incubator / Shaker</u> <ul style="list-style-type: none"> <li>• Digitally operated 8-speed or better shaker.</li> <li>• Can hold two 96 well micro plates for mixing and / or incubating</li> <li>• Temperature modifiable from ambient to 40°C with 0.1°C increment</li> <li>• With lid for light protection</li> <li>• Digital timer controls shaking.</li> <li>• With LED display</li> </ul> <u>AUTOMATIC WASHER 8/12 channel</u> <ul style="list-style-type: none"> <li>• Micro plate washer to deliver washer buffer and ensure complete liquid removal.</li> <li>• Minimum plates 96</li> <li>• Programs for recognition of flat, round and V type plates.</li> <li>• Automatic plate detection</li> <li>• Auto alignment and row detection</li> <li>• Auto calibration</li> <li>• Complete with wash, rinse, waste bottles and piping.</li> </ul>	
14	Hematology Analyzer Open system.	Consisting of: <ul style="list-style-type: none"> <li>• Reagent open system</li> <li>• Hematology Counter with 3 Parts differential automated.</li> <li>• Throughout 60 Samples / Hour minimum</li> <li>• Minimum 16 or better parameters including Hb, WBC, RBC, Hct, Plt, and Derived values.</li> <li>• Flagging of results outside user defined limits</li> <li>• Platelets analysis and distribution flagging</li> <li>• Micro sampling capability</li> <li>• Auto Calibration Program</li> <li>• Reagent level alert</li> <li>• System monitoring</li> <li>• Automated start up and shutdown</li> <li>• Result storage: upto minimum 500 results</li> <li>• Patient data entry and specimen recognition by Key board</li> <li>• RS 232 Interface,</li> <li>• Internal Printer.</li> <li>• With inbuilt auto-sampler or external specimen mixer.</li> <li>• Consumables, Reagents, Calibrators, Controls for startup.</li> </ul>	
15	Laboratory Incubator	<ul style="list-style-type: none"> <li>• Stainless steel chamber with adjustable shelves and a tough ended glass inner viewing door. The outer cabinet is to be rust resistant.</li> <li>• Temperature control: by digital display</li> <li>• Alarm system for high and low temperature, Door close / open.</li> <li>• With over temperature safety cutout to be set by the user.</li> </ul>	

		<ul style="list-style-type: none"> <li>Fitted with circulation fan.</li> <li>Temperature :</li> <li>Range: At least 5°C above ambient to +60°C</li> <li>Control (Fan): ±0.1°C at +37°C</li> <li>Variation (Fan): ±0.25°C at +37°C</li> <li>Chamber Capacity: 80-100 Liters</li> <li>Shelves: 4</li> </ul>	
16	PH Meter	<ul style="list-style-type: none"> <li>PH Range Accuracy: -2.0 ~ 16</li> <li>Resolution: 0.01</li> <li>Auto Calibration: Auto (3 points) / Manual (3 points)</li> <li>PH calibration approximately : 4, 7.0, 9.0, 10.0</li> <li>Temperature: Range accuracy: -10~120°C ±0.4°C.</li> <li>Resolution: 0.1°C.</li> <li>MV Range accuracy: 2000mV,</li> <li>Resolution: ±0.1mV.</li> <li>Data log: 50 or better points,</li> <li>With printer compatibility</li> <li>Display: custom LCD,</li> <li>Inputs: USB</li> <li>Power: Rechargeable Battery/DC Power Adaptor.</li> </ul>	
17	Spectrophotometer	<ul style="list-style-type: none"> <li>Spectrophotometer, wavelength 190 to 1000nm</li> <li>Optical bandwidth 5nm meter</li> <li>LED screen</li> <li>Integral Printer or printer port with external printer (Model must be mentioned)</li> <li>Absorbance Range -0.300 to 2.500A or better on either side</li> <li>Transmittance Range 0 to 199.9% T or better</li> <li>Accuracy: ±2nm or better</li> <li>Multi-Wavelength Assays</li> <li><u>Kinetics with Plot Scanning</u></li> <li>Measurement time: 2 to 9999 seconds or better</li> <li>Kinetics Calibration: Blank with a single standard or factor</li> <li>Kinetics: Display Graphical and concentration value</li> <li>Analysis Concentration, rate of change, initial and final absorbance or % transmittance</li> <li>Self-Test and Calibration</li> <li>RS232 interface</li> <li>Supply with spare lamps 2 no's, fuses, dust cover and two cells.</li> </ul>	
18	SS Filtration Assembly	<ul style="list-style-type: none"> <li>Autoclavable filter holder</li> <li>Manifold made of stainless steel</li> <li>Two way valve for independent control</li> <li>Able to mount on filters</li> <li>Table top model</li> <li>Shall come with vacuum pump preferably peristaltic type</li> <li>Suction should be capable of processing micro pore filter of 0.4 micron</li> <li>Power supply 220V single phase</li> <li><b>Accessories</b></li> <li>Complete with standard accessories includes: 0.4 micron filter box of 200's</li> </ul>	
19	Urine meter	<ul style="list-style-type: none"> <li>Cold light source,</li> <li>Auto save data in case of power failure.</li> <li>Ascorbic acid, bilirubin, blood, glucose, ketene, leucocytes, nitrite PH.</li> <li>Throughout normal mode. 60 sample / hour.</li> <li>Continuous mode. 120 sample/hours or better</li> <li>Display: 5" large LCD or better.</li> <li>Memory: 1000 sample results.</li> <li>Out Put Built-in thermal printer.</li> </ul>	
20	Vortex mixer	<ul style="list-style-type: none"> <li>Vortex mixer to operate when pressure is applied to the rubber cup which receives the vessel containing the materials</li> </ul>	

		<p>to be mixed.</p> <ul style="list-style-type: none"> <li>• Variable speed control up to 3000 rpm or better</li> <li>• Operating Mode: Touch or Continuous</li> <li>• With multiple shaking heads               <ol style="list-style-type: none"> <li>1. 10-13mm and 15mL tube head, for 16 tubes</li> <li>2. Head for 4 x 15 ml tubes</li> </ol> </li> </ul>	
21	Binocular Microscope	<p><u>Standard Microscope Consisting of :-</u></p> <ul style="list-style-type: none"> <li>• Binocular Head Adjustable Inter Papillary Distance</li> <li>• Rotating Quadruple Nose Piece</li> <li>• Adjustable stage with venire Scale And spring clip for slides</li> <li>• Coaxial Controls</li> <li>• Condenser carrier, vertically adjustable</li> <li>• Bright field condenser, NA ,0.9,FlipTop</li> <li>• Light adjustment for condenser</li> <li>• Aperture Iris Diaphragm</li> <li>• Kohler illumination</li> <li>• Halogen /LED illumination Eye Piece <u>Lenses:-</u></li> <li>• X10 wide field, focusable Objective Lenses:-               <ul style="list-style-type: none"> <li>• X4 Plain Achromatic</li> <li>• X10 Plain Achromatic N.A0.25</li> <li>• X40 Plain Achromatic N.A0.65</li> <li>• X100 Plain Achromatic N.A1.25,</li> </ul> </li> <li>Oil Immersion With following accessories:-               <ul style="list-style-type: none"> <li>• Blue iris aperture</li> <li>• Oiler</li> <li>• Dust cover</li> </ul> </li> </ul>	
22	Blood Bank Refrigerator	<ul style="list-style-type: none"> <li>• Cabinet to have smooth stainless steel interior.</li> <li>• Outer door to stay open for ease of access and to have assisted closing with magnetic gasket.</li> <li>• With transparent inner door.</li> <li>• With two or more shelves.</li> <li>• With lockable door.</li> <li>• With interior lighting.</li> <li>• LCD display for temperature and warning / error massages.</li> <li>• Temperature range: 2 to 8 °c or better on either side.</li> <li>• To have seven days chart recorder.</li> <li>• Alarm for warning and error massages.</li> <li>• USB port with frontal access for data transfer.</li> <li>• Minimum Capacity: 120x500cc bag.</li> <li>• With Servo controlled stabilizer.</li> </ul>	
23	Dry Heat Sterilizer/ Hot air oven	<p><u>Features:</u></p> <ul style="list-style-type: none"> <li>• Dust-Free Gravity-Flow convection</li> <li>• For drying, conditioning, Sterilizing and quality control.</li> <li>• Display: Digital touch key pad for temperature control, timer, alarm.</li> <li>• Automatic on/ off function</li> <li>• Over temperature and current protection.</li> <li>• Leakage breaker, fan motor automatically stops when door is opens.</li> <li>• Rapid Heat up in 25 min up to 250°C</li> <li>• Digital Timer built-in Controller</li> <li>• Capacity: 60Liters</li> <li>• Temperature Range Ambient + 5°C to 250°C</li> <li>• Accuracy +1.0°C</li> <li>• Uniformity + 3.0°C at 120°C</li> <li>• Timer Automatic timer 0-99 min,99hr, continuous</li> <li>• Material Inner Stainless Steel</li> <li>• Outer Steel with epoxy powder coating</li> <li>• Shelves Adjustable 2 or 3shelves</li> <li>• Electric Supply 220 V, 50Hz</li> </ul>	

24	Automatic Blood Bag Shaker	<ul style="list-style-type: none"> <li>• Microprocessor controlled</li> <li>• Digital display: For speed and time</li> <li>• Digital speed control 5 to 100 RPM or better</li> <li>• Tilting angle adjustment: 7° to 13°</li> <li>• Timer range: 1 min to 99 hours.</li> <li>• Max. Blood bags: 6 bags</li> </ul>	
25	Water Bath	<ul style="list-style-type: none"> <li>• Capacity: 22liters</li> <li>• Microprocessor controlled</li> <li>• Digital display for temperature controlled</li> </ul> <u>Temperature:</u> <ul style="list-style-type: none"> <li>• Range: Ambient to 99 °C</li> <li>• Accuracy: +-0.5 °C</li> <li>• Uniformity: +- 2.0°C</li> </ul> <u>Material:</u> <ul style="list-style-type: none"> <li>• Bath: seamless stainless steel with lid</li> <li>• Case power coated steal</li> <li>• Safety: over temperature cut-off, Alarm</li> <li>• Electric supply: 220v,50Hz</li> </ul>	

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**Category: Laboratory Ware**

**Note: Selection will be on sample**

S#	Nomenclature	Specification	Qty
1	Automatic pipette (Full Set)	Standard sizes branded	
2	Blood grouping viewing box	Set of Anti A, B, D. 10ml each branded	

3	Bone marrow needles (Adults)	Branded ,reusable ,autoclavable	
4	Bone marrow needles (Pediatrics)	Must be re-useable.	
5	Centrifuge Tubes (Glass)	<ul style="list-style-type: none"> <li>• Good quality made from glass. Tubes are conical- bottomed, with a skirt that extends beyond the bottom of the tube so it can stand without support.</li> <li>• branded</li> </ul>	
6	Centrifuge Tubes (Plastic)	<ul style="list-style-type: none"> <li>• Good quality made from plastic. Tubes are conical- bottomed, with a skirt that extends beyond the bottom of the tube so it can stand without support</li> <li>• Branded.</li> </ul>	
7	Containers for sputum	<ul style="list-style-type: none"> <li>• Stainless Steel with standard size.</li> </ul>	
8	Containers for Urine	<ul style="list-style-type: none"> <li>• Made from stainless steel.</li> </ul>	
9	Cover Slip	<ul style="list-style-type: none"> <li>• From good quality glass material, Size:- 25.4x76.2mm</li> <li>• 1.1.2mm thick</li> </ul>	
10	DLC Counter	<ul style="list-style-type: none"> <li>• Size: Standard 8keys.</li> <li>• Heavy duty, resistant plastic housing.</li> <li>• Dual reset knob.</li> <li>• Signal bell when 100 cells counted</li> </ul>	
11	ESR Pipettes	Made from Pyrex with graduated scale branded	
12	ESR Rack	Good quality , washable, stainless steel rack branded	
13	ESR stand for five Tube	Good quality , washable, quality material & can hold five tubes	
14	FSP Pipette	Good quality , washable, quality material branded	
15	Glass pipettes (different sizes)	Made from durable material with graduated scale. branded	
16	Glass Slide	From good quality glass material branded	
17	Glass Wares	From good quality glass material branded	
18	Jester pipettes (adjustable)	<p>Best quality, good material, adjustable Best</p> <p>quality, good material</p> <p>Best quality, good material</p> <p>branded</p>	
19	Jester pipettes(Fixed)		
20	Jesters		
21	Lancets	From good quality material. Branded	
22	Micropipette Digital Different size	Standard sizes branded	
23	Pipette assorted sizes	Made with graduated scale. branded	
24	Pipette stands	Standard size stand made from stainless steel. branded	
25	Reagent Bottles	With good quality material. branded	
26	SahliHemoglobin meter	Manual Hemoglobin meter with Hb pipette, Hb tube, bottle, glass rod, scanner for Hb Measuring branded	
27	Test tube holder	Stainless steel with 36 tubes. branded	
28	Test Tube Racks Stainless Steel	Good quality, washable, stainless steel rack and can hold 12 tubes. branded	
29	Test Tubes	From good quality glass material	
30	Test Tubes Racks wooden	Good quality and finish good wood and can hold 12 test tubes.	
31	Tube Sealer	<ul style="list-style-type: none"> <li>• Oscillation Frequency 68 MHz or better</li> </ul>	

		<ul style="list-style-type: none"> <li>• Radio Frequency Output 500Ohm</li> <li>• Max Sealing Time 10 seconds or better</li> <li>• Power Voltage 220 voltage</li> <li>• Power Frequency 50Hz</li> <li>• Power Consumption 220VA</li> </ul>	
32	Trephine biopsy needle	Must be re-useable. autoclavable	
33	Wire Loops	Good quality material	
34	Wooden Boxes	Good quality material	
35	Electronic Balance	<ul style="list-style-type: none"> <li>• Automatic Internal Calibration through Built in Motorized Weight</li> <li>• Maximum Capacity : 0 mg to 220 gm. or better</li> <li>• Glass Breeze Break</li> </ul>	
37	Haemo cytometer	Manually operated, complete set of counting chamber, Cover slips, WBC pipette, RBC Pipettes (Imported).	
38	Analytical Balance /Electric balance	<ul style="list-style-type: none"> <li>• The balance to weigh up to 400g in 1mg increments.</li> <li>• The balance to be small, flat and conveniently housed in portable lightweight easy to clean housing.</li> <li>• To have a 7 digit luminous display with overload protection.</li> <li>• To come complete with data input and output terminals and a printout terminal</li> </ul>	
39	Jester 1 ml	Parts: <ol style="list-style-type: none"> <li>1. Pushing Knob</li> <li>2. Adjustable wheel</li> <li>3. Tip effecting knob</li> <li>4. Clunter</li> <li>5. Handle</li> <li>6. Suction tube</li> </ol> All kind of jester should be moveable	
40	Jester (10 to 50 ul)	<ol style="list-style-type: none"> <li>1. Pushing Knob</li> <li>2. Adjustable wheel</li> <li>3. Tip effecting knob</li> <li>4. Clunter</li> <li>5. Handle</li> <li>6. Suction tube</li> </ol> All kind of jester should be moveable	
41	Jester (10 to 100 ul)	<ol style="list-style-type: none"> <li>1. Pushing Knob</li> <li>2. Adjustable wheel</li> <li>3. Tip effecting knob</li> <li>4. Clunter</li> <li>5. Handle</li> <li>6. Suction tube</li> </ol> All kind of jester should be moveable	
42	Jester (10 to 200 ul)	<ol style="list-style-type: none"> <li>1. Pushing Knob</li> <li>2. Adjustable wheel</li> <li>3. Tip effecting knob</li> <li>4. Clunter</li> <li>5. Handle</li> <li>6. Suction tube</li> </ol> All kind of jester should be moveable	
43	Jester Fix 10ul	<ol style="list-style-type: none"> <li>1. Pushing Knob</li> <li>2. Adjustable wheel</li> <li>3. Tip effecting knob</li> <li>4. Clunter</li> <li>5. Handle</li> <li>6. Suction tube</li> </ol> All kind of jester should be moveable	



**Category: Radiology**

S#	Nomenclature	Specification	Qty
1	X-Ray Plant 1000 mA, AC & Battery Operated with in built or external AVR	<ul style="list-style-type: none"> <li><u>HIGH FREQUENCY X-RAY MACHINE 1000 mA (RADIOGRAPHY ONLY) with Inbuilt or external AVR and UPS</u> <b><u>In case of external AVR the model /brand /make of the main x ray unit and each quoted component must be mentioned</u></b></li> <li>the AVR must able to control the voltage between 100V to 260V&amp;to provide constant output voltage of 220V,50Hz</li> <li>In case of external AVR and ups system the AVR/UPS system shall be compatible with the x ray unit for minimum of 70 to 100 exposes on different KV and mA. (Compatibility certificate from the manufacturer must be provided).</li> <li>AVR/UPS, brand and model must be mentioned.</li> </ul> <p><b><u>X-RAY unit Comprising of following: -</u></b></p> <ul style="list-style-type: none"> <li>High Frequency, Microprocessor controlled X-Ray Generator 1000 mA /150 KV / 80 KW or better.</li> <li>With inbuilt /external AVR and UPS system minimum 70 to 100 exposures or better.</li> <li>4 Way Floating top Bucky table Floor to ceiling or free standing Tube stand..</li> <li>Input voltage: 380~440VAC 3-phase.</li> <li>kV Range: 40 - 150kV.</li> <li>mA Range : 10 -1000mA.</li> <li>Minimum exposure time: 1 millisecond or less.</li> <li>Exposure time range: 1ms – 10 sec or more.</li> <li>mAs Range : 02 - 1000mAs</li> <li>Anatomical Programming: 150 or more.</li> <li>Digital display of parameters.</li> <li>Hand Switch for Radiography.</li> <li>With control console.</li> <li>Pedestal for control console.</li> <li>Automatic main line compensation.</li> </ul> <p><b>ROTATING ANODE with HSS , X-RAY TUBE(model must be mentioned)</b> <b><u>Double focus:</u></b></p> <ul style="list-style-type: none"> <li>Small Focus: 0.6 x 0.6 mm or Less.</li> <li>Large Focus: 1.2 x 1.2 mm or Less.</li> <li>Tube voltage: 150kV.</li> <li>Anode heat storage capacity: 400 KHU or more.</li> <li>Target Angle: 12° or better.</li> </ul> <p><b>FOUR WAY FLOATING TOP BUCKY TABLE(model must be mentioned)</b></p> <ul style="list-style-type: none"> <li>Four way floating top.</li> <li>Oscillating Grid.</li> <li>Cassette Tray to accommodate cassettes up to 14x17inch.</li> <li>Electromagnetic Brakes.</li> <li>Grid ratio 12:1, 103 Lines per inch.</li> </ul> <p><b>COLUMN STAND WITHMANUALCOLLIMATOR(model must be mentioned)</b></p> <ul style="list-style-type: none"> <li>Column stands with electromagnetic brakes for movement control.</li> <li>Manual Collimator</li> <li>Column stand console with handle having facility of tube rotation(vertical axis), Vertical movement and horizontal movement.</li> </ul> <p><b>HIGH TENSION CABLES:</b></p> <ul style="list-style-type: none"> <li>Pair of High Tension Cables, each 12 m or long.</li> </ul>	

		<b>WALL BUCKY STAND(model must be mentioned)</b> <ul style="list-style-type: none"> <li>Vertical Travel, up and down with balancing system &amp; Electromagnetic Brakes.</li> <li>Oscillating Grid.</li> <li>Cassette Tray to accommodate cassettes up to 14x17 inch</li> </ul> Grid ratio 12:1, 103 Lines per inch.	
2	X-Ray Plants 500mA AC & Battery Operated within built or external AVR	<ul style="list-style-type: none"> <li><b><u>HIGH FREQUENCY X-RAY MACHINE 500 MA (RADIOGRAPHY ONLY) with Inbuilt or external AVR and UPS</u></b> <b><u>In case of external AVR the model /brand /make of the main x ray unit and each quoted component must be mentioned</u></b></li> <li>the AVR must able to control the voltage between 100Vto 260V&amp;to provide constant output voltage of 220V,50Hz</li> <li>In case of external AVR and ups system the AVR/UPS system shall be compatible with the x ray unit for minimum of 70 to 100 exposes on different KV and mA. (Compatibility certificate from the manufacturer must be provided).</li> <li>AVR/UPS, brand and model must be mentioned.</li> </ul> <b><u>X-RAY unit Comprising of following: -</u></b> <ul style="list-style-type: none"> <li>High Frequency X-Ray Generator 500mA /150 KV / 40 KW or better.</li> <li>With inbuilt /external AVR and UPS system minimum 70 to 100 exposures or better.</li> <li>4 Way Floating top Bucky table Floor to ceiling or free standing Tube stand.</li> </ul> <b><u>X-ray tube head with:</u></b> <ul style="list-style-type: none"> <li>Focal spot Size 0.6 x 1.2 mm or better on either side</li> <li>300 KHU or more.</li> <li>Manual Collimator.</li> <li>Pair of H.T cable</li> <li>.Bucky wall stand.</li> </ul> <b><u>X-RAY GENERATOR RAD TYPE, 01 TUBE SYSTEM</u></b> <ul style="list-style-type: none"> <li>Microprocessor controlled High frequency.</li> <li>Power: 40 kW or better.</li> <li>kV Range: 40 - 150kV</li> <li>mA Range : 10 -500mA</li> <li>Minimum exposure time: 1 milli second or less</li> <li>Exposure time range: 1ms – 8.0 sec or more</li> <li>mAs Range : 02 - 500mAs or more</li> <li>Anatomical Programming: 100 or more.</li> <li>Digital display of parameters.</li> <li>Hand Switch for Radiography.</li> <li>With control console.</li> <li>Pedestal for control console.</li> <li>Automatic main line compensation.</li> <li>Input voltage: 220V, 50Hz.</li> </ul> <b><u>ROTATING ANODE, DOUBLE FOCUS X-RAY TUBE(model must be mentioned)</u></b> <ul style="list-style-type: none"> <li>Small Focus: 0.6 x 0.6 mm or Less.</li> <li>Large Focus: 1.2 x 1.2 mm or Less.</li> <li>Tube voltage: 150kV.</li> <li>Anode heat storage capacity: 300 KHU or more.</li> <li>Target Angle: 12° or better</li> </ul> <b><u>FOUR WAY FLOATING TOP BUCKY TABLE(model must be mentioned)</u></b> <ul style="list-style-type: none"> <li>Four way floating top.</li> <li>Oscillating Grid.</li> <li>Cassette Tray to accommodate cassettes up to 14x17inch</li> <li>Electromagnetic Brakes.</li> <li>Grid ratio 12:1, 103 Lines per inch</li> </ul> <b><u>COLUMNSTAND WITH MANUALCOLLIMATOR(model must be mentioned)</u></b> <ul style="list-style-type: none"> <li>Column stands with electromagnetic brakes for movement control.</li> <li>Manual Collimator</li> </ul> <b><u>HIGH TENSION CABLES:-</u></b> <ul style="list-style-type: none"> <li>Pair of High Tension Cables, each 12 m or more long <b><u>WALL BUCKY STAND(model must be mentioned)</u></b></li> </ul>	

		<ul style="list-style-type: none"> <li>Vertical Travel, up and down with balancing system &amp; Electromagnetic Brakes</li> <li>Oscillating Grid</li> <li>Cassette Tray to accommodate cassettes up to 14x17 inch</li> <li>Grid ratio 12:1, 103 Lines per inch.</li> </ul>	
3	X-Ray Plants 300mA AC & Battery Operated in built or external AVR	<p><b><u>HIGH FREQUENCY X-RAY MACHINE 300 MA (RADIOGRAPHY ONLY) with Inbuilt or external AVR and UPS</u></b></p> <p><b><u>In case of external AVR the model /brand /make of the main x ray unit and each quoted component must be mentioned</u></b></p> <ul style="list-style-type: none"> <li>the AVR must be able to control the voltage between 100VAC to 260VAC, to provide constant output voltage of 220VAC,50Hz</li> <li>In case of external AVR and UPS system the AVR/UPS system shall be compatible with the x ray unit for minimum of 70 to 100 exposures on different KV and mA. (Compatibility certificate from the manufacturer must be provided).</li> <li>AVR/UPS brand model must be mentioned.</li> </ul> <p><b><u>X-RAY unit Comprising of following: -</u></b></p> <ul style="list-style-type: none"> <li>High Frequency X-Ray Generator 300 mA /125 KV / 32 KW or better.</li> <li>With inbuilt /external AVR and UPS system minimum 70 to 100 exposures or better.</li> <li>4 Way Floating top Bucky table Floor to ceiling or free standing Tube stand.</li> </ul> <p><b><u>X-ray tube head with:</u></b></p> <ul style="list-style-type: none"> <li>Focal spot Size 0.6 x 1.2 mm or better on either side</li> <li>140KHU or more.</li> <li>Manual Collimator.</li> <li>Pair of H.T cable</li> <li>.Bucky wall stand.</li> </ul> <p><b><u>X-RAY GENERATOR RAD TYPE, 01 TUBE SYSTEM</u></b></p> <ul style="list-style-type: none"> <li>Microprocessor controlled High frequency.</li> <li>Power: 32 kW or better.</li> <li>kV Range: 40 - 125kV</li> <li>mA Range : 10 -300mA</li> <li>Minimum exposure time: 1 milli second</li> <li>Exposure time range: 1 ms – 4 sec or more</li> <li>mAs Range : 02 - 300 mAs or more</li> <li>Anatomical Programming: 40 or more.</li> <li>Digital display of parameters.</li> <li>Hand Switch for Radiography.</li> <li>With control console.</li> <li>Pedestal for control console.</li> <li>Automatic main line compensation.</li> <li>Input voltage:220 V, 50Hz.</li> </ul> <p><b><u>ROTATING ANODE, DOUBLE FOCUS X-RAY TUBE(model must be mentioned)</u></b></p> <ul style="list-style-type: none"> <li>Small Focus: 0.6 x 0.6 mm or better.</li> <li>Large Focus: 1.2 x 1.2 mm or better.</li> <li>Tube voltage: 125kV.</li> <li>Anode heat storage capacity: 140 KHU or more.</li> <li>Target Angle: 12° or better</li> </ul> <p><b><u>FOUR WAY FLOATING TOP BUCKY TABLE(model must be mentioned)</u></b></p> <ul style="list-style-type: none"> <li>Four way floating top.</li> <li>Oscillating Grid.</li> <li>Cassette Tray to accommodate cassettes up to 14x17inch</li> <li>Electromagnetic Brakes.</li> <li>Grid ratio 12:1, 103 Lines per inch</li> </ul> <p><b><u>COLUMNSTAND WITH MANUALCOLLIMATOR(model must be mentioned)</u></b></p> <ul style="list-style-type: none"> <li>Column stands with electromagnetic brakes for movement control.</li> <li>Manual Collimator</li> <li>Colum stand console with handle having facility of tube rotation(vertical axis),Vertical movement and horizontal movement</li> </ul>	

		<p><b><u>HIGH TENSION CABLES:-</u></b></p> <ul style="list-style-type: none"> <li>• Pair of High Tension Cables, each 12 m or more long</li> </ul> <p><b><u>WALL BUCKY STAND(model must be mentioned)</u></b></p> <ul style="list-style-type: none"> <li>• Vertical Travel, up and down with balancing system &amp; Electromagnetic Brakes</li> <li>• Oscillating Grid</li> <li>• Cassette Tray to accommodate cassettes up to 14x17 inch Grid ratio 12:1, 103 Lines per inch.</li> </ul>	
4	Mobile X-Ray plant 300 mA/125KV AC & Battery Operated	<ul style="list-style-type: none"> <li>• 300mA Inverter Type Mobile X-Ray Unit with AC &amp; Battery Operated facility</li> <li>• Input voltage 220v, 50Hz</li> </ul> <p><b><u>X-Ray Generator</u></b></p> <ul style="list-style-type: none"> <li>• KV Range : 40kv to 125 kV in 01 kV Steps.</li> <li>• mA Range : Max. 300mA</li> <li>• KW : 32KW or better</li> </ul> <p><b><u>X-Ray Tube Unit</u></b></p> <ul style="list-style-type: none"> <li>• Rotating anode : Double focus</li> <li>• Focus Size : 0.6 &amp; 1.2 mm or better on either side</li> <li>• Target Angle : 14 or better on either side</li> <li>• Anode heat storage capacity : 140 KHU or better</li> </ul> <p><b><u>X-Ray Beam Limiting Device</u></b></p> <ul style="list-style-type: none"> <li>• Projector Lamp: Halogen</li> <li>• Filtration: 1.2mm Aluminum or better.</li> </ul> <p><b><u>Movement Range Of X-Ray Tube</u></b></p> <ul style="list-style-type: none"> <li>• (Center Of X-Ray Tube): Vertical : 45cm To 200cm From Floor To Focus or better</li> <li>• Rotating Column : 360°</li> <li>• Longitudinal Pivoting Of X-Ray Tube: 90° Backward</li> <li>• Horizontal Rotation of Arm should be available.</li> <li>• With APR system.</li> <li>• Cassette Box: For Storage Of At Least 3 Cassettes</li> </ul>	
5	CR System (computerized radiography system)	<ul style="list-style-type: none"> <li>• <b><u>Digitizer</u></b> <b><u>Exposure size:</u></b> 14"x17" / 14"x14" / 11"x14" / 10"x12" / 8"x10" <b><u>Sampling pitch:</u></b> 2 Types: 80µm to 180 µm or better. <b><u>Digital Gradation level:</u></b> 4096 Levels (12-Bit) <b><u>Processing Capability:</u></b> up to 80 Plates / hour (14"x14"/14x17" (180µm) <b><u>Cassette Feed</u></b> 45 seconds for (14"x14"/ 14x17" (180µm) or better</li> <li>• <b><u>Console</u></b> <b><u>Image Processing:</u></b> Automatic Body Part recognition Automatic Processing Parameter study. <b><u>Image Output:</u></b> Maximum: Host: 2ch for Normal, 1ch for backup Printer: 1ch for Normal, 1ch for backup. <b><u>DICOM Support:</u></b> Basic Gray scale Print Management (SCU) Storage (SCU) Modality work list Management Modality performed Procedure step Gray scale Standard Display Function (Print Output)</li> <li>• <b><u>Computer Desktop (branded from original manufacturer)</u></b> CPU Core i 7 Processor: 3.4 GHz Bit Processing: 64 Bits Cache L1-L2: 8MB CD/DD/Super Drive Support Installed Processor Core i7 Hard Disk: 1 TB Memory Ram type: DDR3 Number of memory /Ram Slots: 2 Slots</li> </ul>	

		<p>Memory Ram Size: 8 Giga Byte, supported up to 16 Giga Byte  USB: 06 USB Ports or better  <b><u>Monitor</u></b>: Medical grade monitor, color TFT (LCD) <u>(model must be mentioned)</u>  <b><u>Size: 19"</u></b> or better.  <b><u>Resolution:</u></b> 1280x1024 or better.  <b><u>Brightness:</u></b> 300 Cd/m2 or better.  <b><u>Contrast Ratio:</u></b> 2000:1 or better With  e. Brightness stabilization  f. Back light sensor.  g. Power saving mode &amp;  h. USB Port.  Accessories: AC power cord, Signal Cable, USB cable.  <b><u>Cassettes / Imaging Plates Active dual tray system:</u></b>  <u>a.</u> 14"x17" (2Nos)  <u>b.</u> 14" x 14" (2Nos)  <u>c.</u> 11" x 14" (2Nos)  <u>d.</u> 10" x 12" (2Nos)  <u>e.</u> 8" x 10" (2Nos)  <b><u>Laser / thermal with dual tray system:</u></b>  <ul style="list-style-type: none"> <li>Laser Source: Semi-conductor</li> <li>Laser Films Size: 14"x17" (35x43cm)  14" x 14" (35 x35cm)  11"x14" (28x35 cm)  10"x12" (25x30 cm)  8"x10" (20x25 cm)</li> </ul> <p>Film: Dry Image recording film</p> <p>Image Memory: Print Memory (64MB/Standard) Number of Pixels: 78.6 um (300dpi) or better Image Data Input: 8-Bits /12-Bits.  Output Gradation: 16834 levels (14-Bits)  Image Mode: Pixel Replication / Function Interpolation Process  Processing Capability: 90-Sheets/ hour or better  Protocol: DICOM Print Management.</p> </p>	
6	DR system for existing X-ray machines	<p>Plate panel detector with acquisition software and dry film printer  Flat panel detector (model and make must be given)</p> <ul style="list-style-type: none"> <li>The Flat panel Detector should be wireless.</li> <li>Pixel size of 140 Microns or better.</li> <li>The size (active area) of the Flat panel Detector should be at least 14 x 17 inch</li> <li>Images pre-viewing should be available in about less than 3secs after exposure and the cycle time should be less than 10 seconds.</li> <li>Should have a minimum image depth of 12 bit or better</li> <li>Matrix size 3000 x 2500 or better.</li> <li>KV rang 40 ~ 150kVp</li> <li>The flat panel detector should be able to Rotate/Tilt for various applications.</li> <li>The flat panel Detector should be fixed in the vertical Bucky Stand, Should be in position to handle Vertical Chest X Ray, Horizontal Abdominal X Rays applications.</li> <li>AED Mode should be present</li> <li>A to D conversion: 14 bits or more.</li> <li>Easy positioning at the time of out of bucky exposures.</li> <li>The detector should be able to work at normal room temperature and humidity.</li> <li>The detector system should not require frequent calibrations on daily start-up</li> <li>Offered detector should have load bearing capacity of 160kgs or more.</li> </ul> <p>Backup time Battery</p> <ul style="list-style-type: none"> <li>Life of the battery 120 images @ 90 s cycle</li> </ul>	

		<ul style="list-style-type: none"> <li>Recharging time less than 3 hours</li> <li>One extra Lithium Battery with the detector should be provide</li> </ul> <p><b><u>IMAGE ACQUISITION IMAGE PROCESSING</u></b></p> <ul style="list-style-type: none"> <li>PC based computerized IMAGE ACQUISITION IMAGE PROCESSING with window based software</li> <li>19 inch medical grade TFT monitor with high resolution 1280x1024 or better Brightness: 300 Cd/m2 or better Contrast Ratio: 2000:1 or better With Brightness stabilization</li> <li>The software have capability to support 2 detectors or more</li> <li>Image saving in CD/DVD and DICOM format should be possible.</li> <li>Multi core processor (core i7, 3.4Hz) bit processing 64 Bits, Cache 8MB, special graphic card for medical grade monitor installed in CPU. RAM not less than 4GB and Should have image storage disk of at least 1TB internally</li> <li>The system should have ready DICOM interface and networking capability with PACS.</li> <li>Post processing function must be available. Measurement Tools, Window Level, Rotate, Repeat / Reject, Magnify, Zoom , Images elaboration with examination specific algorithms</li> <li>Filming options should be available</li> <li>Power Supply – 220V, 50Hz.</li> </ul> <p>Dry film printer with at least 3 online film tray, for printing the digital images ( Model and brand must be mentioned )</p>	
6	Automatic Film Processor	<p>Variable speed 45 sec, 60 sec , 90 &amp;120 sec</p> <ul style="list-style-type: none"> <li>Film: 90 Films per Hour or more</li> <li>Minimum Film Size: 4 x 4 inch</li> <li>Maximum Film Size: 14 x 17 inch</li> <li>Electrical Requirements: 220VAC, 50 Hz</li> </ul>	
7	Ultrasound machine (General purpose) with Multiple probes & Thermal Printer	<p><b><u>Heavy duty U/S machine with</u></b></p> <ul style="list-style-type: none"> <li>Imaging Mode: B,B/B,B/M,M</li> <li>Gray Scale: 256</li> <li>Display: 14”Non-Interlaced or better</li> <li>Scanning Depth: From 20 To 248 mm</li> <li>Pre-Processing: Signal Processing, Dynamic Range, Frame Correlation, Line Correlation,</li> <li>Image Enhancement, Scanning Angle Selection, Harmonic Imaging)</li> <li>Post-Processing Gray Map Y- Correction, Rejection Left-Right</li> <li>Reverse, Up-Down Reverse</li> <li>Hard Disk: 500 GB or better</li> <li>Cine Loop: 256-Frame Cine loop Memory In B/B, M and B/M Mode.</li> <li>Zoom: Panoramic Zoom In Real-Time &amp;</li> <li>Frozen: Condition</li> </ul> <p><b><u>Measurement &amp; Calculation:</u></b></p> <ul style="list-style-type: none"> <li>B.Mood: Distance, Circumference, Area, Volume, Angle, Ratio.</li> <li>Built-In Imaging Archive“ Storage : Over100,000 still Images”</li> <li>Histogram, Profile, S%</li> <li>M-Mode, Distance, Time, Velocity, Heart Rate (2 Cycles)</li> </ul> <p><b><u>Software Packages.</u></b></p> <ul style="list-style-type: none"> <li>Abdomen, Urology, Gynecology, Obstetrics, Cardiology, Vascular, Small Parts, Orthopedics.</li> <li>Power Supply :220 VAC,50Hz</li> </ul> <p><b><u>Standard Configurations:</u></b></p> <ul style="list-style-type: none"> <li>Main Unit</li> <li>2 Probe Connector.</li> <li>Tissue Harmonic Imaging.</li> <li>256-Frame Cine Loop In B, B/B,M&amp; B/M Mood</li> <li>USB Ports minimum 2 and CD-RW.</li> </ul>	

		<ul style="list-style-type: none"><li>• Measurement And Calculation Software Packages</li><li>• Electronic Convex Array Transducer. (Model must be mentioned).2.5/3.5/5.0/H4.6/H6.0 MHz</li><li>• Electronic Linear Array Transducer: (Model must be mentioned)5.0/7.5/10MHz</li><li>• Along With</li><li>• Thermal Printer (Branded &amp; model must be mentioned)</li><li>• 50 Roles Thermal Paper.</li><li>• Stabilizer 1 KVA, UPS, Gel 20Ltr</li><li>• With trolley (local made).</li></ul>	
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**Category: Radiology Accessories / Allied Equipment**  
**Selection will be on sample**

S#	Nomenclature	Specification	Qty
1	X-Ray Viewing Box	<ul style="list-style-type: none"> <li>X-Ray Film Viewer with following features.</li> <li>Housing made of epoxy-coated steel.</li> <li>Viewing area for two 14"x17" film.</li> <li>Light intensity more than 6000 Lux.</li> <li>With light intensity control.</li> <li>Suitable for wall mounted and table use.</li> <li>Film clamps and hooks for holding wet films</li> <li>Power requirements 220V,50Hz.</li> </ul>	
2	X-Ray Cassette 12 x 15 with Green screen.	<ul style="list-style-type: none"> <li>Cassettes with H.S type intensifying screen. From USA, Japan, UK, Germany and Korea. With green screen for selection.</li> </ul>	
3	X-Ray Cassette 10 x 12 with Green screen.	<ul style="list-style-type: none"> <li>Cassettes with H.S type intensifying screen. From USA, Japan, UK, Germany and Korea. With green screen for selection.</li> </ul>	
4	X-Ray Cassette 8 x 10 with Green screen.	<ul style="list-style-type: none"> <li>Cassettes with H.S type intensifying screen. From USA, Japan, UK, Germany and Korea. With green screen for selection.</li> </ul>	
	X-Ray Cassette 12 x 15 with blue screen.	<ul style="list-style-type: none"> <li>Cassettes with H.S type intensifying screen. From USA, Japan, UK, Germany and Korea. With blue screen for selection.</li> </ul>	
	X-Ray Cassette 10 x 12 with blue screen.	<ul style="list-style-type: none"> <li>Cassettes with H.S type intensifying screen. From USA, Japan, UK, Germany and Korea. With blue screen for selection</li> </ul>	
	X-Ray Cassette 10 x 10 with blue screen.	<ul style="list-style-type: none"> <li>Cassettes with H.S type intensifying screen. From USA, Japan, UK, Germany and Korea. blue screen for selection</li> </ul>	
5	Hangers Various Size	<ul style="list-style-type: none"> <li>Hanger to be manufactured from stainless steel and to Have a clip at each end to keep film taut.</li> </ul>	
6	Safe Light for Dark Room	<ul style="list-style-type: none"> <li>Wall mounted lamp for all blue and green sensitive X-Ray Films. Together with two spare lamps (15 watts).</li> <li>Power requirement 220V/50Hz.</li> </ul>	
8	Lead Apron	<ul style="list-style-type: none"> <li>Best quality, imported</li> <li>Flexible lead rubber in tear resistant plastic cover</li> <li>Sleeveless, half-length at back</li> <li>Fastening with crossed elastic straps with Velcro end</li> <li>0.5mm lead thickness for small, medium and large sizes</li> </ul>	
9	Lead Gloves	<ul style="list-style-type: none"> <li>Best quality, imported</li> <li>Flexible lead rubber in tear resistant plastic cover</li> <li>0.2mm lead thickness inside gloves.</li> </ul>	
10	Lead Glass Shield	<ul style="list-style-type: none"> <li>3 part X-Ray protection screen with metal frame. Size of each part should be 7'x2.5' covered with lead sheet of 0.2mm</li> <li>Easily moveable to all sides on at least 2 castors on each part.</li> <li>Lead glass size 200x200mm,thickness 2mm</li> <li>.</li> </ul>	
13	Immersion Rod	<ul style="list-style-type: none"> <li>For warming of developer, good quality</li> </ul>	
14	Plastic Apron	<ul style="list-style-type: none"> <li>For dark room water proof, good quality, imported.</li> </ul>	
15	Clamps	<ul style="list-style-type: none"> <li>For hanging of films, good quality.</li> </ul>	
16	Wet Film Stand	<ul style="list-style-type: none"> <li>For drying of films, Wet films stand for holding wet films to accommodate up to 10 Nos 14"x17" size, after manual film processing.</li> </ul>	
17	Manual Film Processor	<ul style="list-style-type: none"> <li>The processing unit to be equipped with a thermostatically controlled water jacket containing S.Steel processing tanks together with a separate unheated running wash section</li> <li>Overall dimensions: 570x650x825 mm high with a splash Back 230mm high.</li> <li>Developing and fixing tanks 3 gallon capacity each.</li> </ul>	
18	X-Ray Viewer	<ul style="list-style-type: none"> <li>X-Ray Film Viewer with following features.</li> <li>Housing made of epoxy-coated steel.</li> <li>Viewing area for two 14"x17" film.</li> <li>Light intensity more than 9000 lux.</li> <li>Suitable for wall mounted and table use. Film clamps and hooks for holding wet films Light intensity control.</li> <li>Power requirements 220V, 50Hz.</li> </ul>	



**Category: ENT Equipment**

S#	Nomenclature	Specification	Qty
1	ENT examination Chair	<p><b><u>ENT CHAIR</u></b></p> <ul style="list-style-type: none"> <li>• Patient chair with Peltex-lined seat and backrest.</li> <li>• Electric up and down movements by silent engine controlled through foot switch.</li> <li>• Back-rest can be adjusted up to 180° by a gas spring. Chair rotation.360° and is provided with a rotation locking device.</li> <li>• Input voltage 220V-50Hz</li> </ul> <p><b>NOTE; The chair &amp; ENT Unit must be from the same manufacturer</b></p>	
2.	ENT Examination Unit with cautery suction	<ul style="list-style-type: none"> <li>• <b><u>ENT CABINET</u></b></li> <li>• The ENT Unit mobile on pivoting castors,</li> <li>• Working surface made of scratch-proof material.</li> <li>• One drawer to keep sterilized instrument.</li> <li>• With a silent <b>suction pump</b> of 45 L/min or better at 680 mmHg with suction bottle 3000cc.</li> <li>• With power supply complete with dim adjustment device for lamp, larynx-mirror warmer, and twin-cylinder dry compressor for tubal insufflations.</li> <li>• 2-liters distilled water tank with acoustic signal for reserve level.</li> <li>• With articulated arm for instruments holding tray with terminal suction canola and terminal insufflations canola.</li> <li>• Ear rinsing syringe with automatic water temperature control to keep the water warm at37°C..</li> <li>• Pressure Monometer with medication sprayer.</li> <li>• Mirror-heater</li> <li>• With inbuilt Cautery machine.</li> <li>• <b><u>DOCTOR CHAIR</u></b></li> <li>• Height adjusted by Gas bracked system. Mobile on 5 soft double conductive castors. Back rest variable in height and inclination.</li> </ul> <p><b>NOTE; The chair &amp; ENT Unit must be from the same manufacturer.</b></p>	
3	Pure Tone Audiometer	<ul style="list-style-type: none"> <li>• Large backlight graphical LCD display</li> <li>• Input voltage 220v,50Hz</li> <li>• True two channels include microphone, assistant phone</li> <li>• Automatic data transfer to computer and data printer</li> <li>• Test signals: pure, pulse, warble tone, narrow band, white.</li> <li>• Speech masking noise.</li> <li>• Tone test HL, UCL, Aided (free field).</li> <li>• Speech test.SRT,WRS,UCL.</li> <li>• Over threshold tests: SISI,Decay,ABLB,MLB,stranger.</li> <li>• Inputs: CD/Tape, stereo live speech microphone, external masking, patient microphone, patient response switch.</li> <li>• Air conduction range: -10db to 120dBHL or better on either side , include headphone</li> <li>• Bone conduction range: -10db to 70/75 db or better.</li> <li>• Speech: 10db to 100dbHL.</li> <li>• Masking: -10db to 100dbHL.</li> <li>• Masking: Free as well as synchronized masking</li> <li>• High tone audiometry for AC to BC 130 hz - 8 kHz or better on either side..</li> <li>• Free field range: -10 to 90 dB or better on either side, at 1m distance include speaker 120 dB.</li> <li>• Selectable range of Test frequencies.</li> </ul> <p><b><u>Accessories :</u></b></p> <ul style="list-style-type: none"> <li>• Air conduction head set.</li> <li>• Bone conduction head set</li> <li>• Patient response switch</li> <li>• Micro phone.</li> </ul>	
4	Mastoid Surgery with drill with all size burrs	<p><b>High speed electronic mastoid drill</b></p> <ul style="list-style-type: none"> <li>• Drill speed: 40000 -100000 rpm</li> <li>• With control unit and cable.</li> <li>• Single or double foot switches control With</li> </ul> <ol style="list-style-type: none"> <li>1. intra drill straight hand piece</li> <li>2. Intra drill angled hand piece.</li> </ol>	

		<ol style="list-style-type: none"> <li>3. Standard straight shaft burr sizes 006-070,length7cm,set of 15</li> <li>4. Tungsten corbite straight shaft burr, stainless size 006-070, length 7 cm set of 15.</li> <li>5. Tungsten corbite straight shaft burr with course cut, stainless size 014-060, length 7 cm set of 6.</li> <li>6. Diamond straight shaft burr stainless size 006-070,length 7cm set of 15</li> <li>7. Rapid Diamond Straight Burr, stainless, with coarse diamond coating for precise drilling and abrasion without hand pressure and generating minimal heat, sizes 023-070, length 7 cm, set of 9 color code: gold.</li> </ol>	
5	Head Light with Cool Illumination	<ul style="list-style-type: none"> <li>• White cold light illumination LED with 7100 Lux.</li> <li>• With 5500 Kelvin.</li> <li>• Adjustable headband with washable inner padding.</li> <li>• On / off switch on battery compartment.</li> <li>• Charger jack for plug in charger.</li> <li>• Supplied with 4 rechargeable batteries.</li> </ul>	
6	Direct Micro Laryngoscope Set	<ul style="list-style-type: none"> <li>• Operating Laryngoscope, with extra light handle, large size, length 17 cm or better, with connector for light Carrier.</li> <li>• Straight Forward Telescope 0degree enlarged view, diameter 4mm, length 18 cm or better, autoclavable, fiber optic light transmission.</li> <li>• Operating Laryngoscope, for adults, medium, length 18 cm or better (for anterior commissural).</li> <li>• Operating Laryngoscope, child size, length 15 cm or better</li> <li>• Telescope protection tube, 5.0 mm, length 20 cm or better, for use of light carrier.</li> <li>• Clip, short, for proximal illumination</li> <li>• Fiber Optic Light Carrier, for distal illumination, working length 14 cm or better, for use with Laryngoscopes and Divert iculoscopes</li> <li>• Fiber Optic Light Carrier, for use with Laryngoscopes</li> <li>• Laryngoscopes holder, with wide angle adjustment consisting of: Holder with wheel support rod.</li> <li>• Forceps, straight, with 2 mm or better cupped jaws, with cleaning connector, working length 23 cm or better</li> <li>• Insert able Suction Tube, for use with laryngoscopes.</li> <li>• Forceps, curved upwards, with 2 mm or better cupped jaws, with cleaning connector, working length 23 cm or better</li> <li>• Miniature Forceps, straight, with 1 mm cupped jaws, sheath conically reinforced from distal to proximal end, with cleaning connector, working length 23 cm or better</li> <li>• Forceps, curved to right, with 2 mm or better cupped jaws, with cleaning connector, working length 23 cm or better</li> <li>• Scissors, straight, with cleaning connector, working length 23 cm or better</li> <li>• Micro forceps, straight, with 1 mm or better cupped jaws, with cleaning connector, working length 20 cm or better</li> <li>• Spoon Forceps, with cupped jaws, diameter 5 mm or better, robust model, double action jaws, sheath diameter 2.5 mm or better, with cleaning connector, working length 23 cm or better</li> <li>• Forceps, for a traumatic retraction of true vocal cords, distal end with blunt curved blades, self-retaining, with retched and cleaning connector, working length 24 cm or better</li> <li>• Miniature Forceps, curved upwards, with 1 mm or better cupped jaws, sheath conically reinforced from distal to proximal end, with cleaning connector, working length 23 cm or better</li> <li>• Suction Tube, outer diameter 3 mm or better, working length 23 cm or better</li> <li>• Miniature Grasping Forceps, straight, serrated, sheath conically reinforced from distal to proximal end, with cleaning connector, working length 23 cm or better</li> <li>• Grasping Forceps, delicate, serrated, special matt finish, with cleaning connector, working length 22 cm or better</li> <li>• Sickle Knife, curved, delicate, 3 mm to 1 mm tapered shaft, total length 23 cm or better</li> <li>• Suction Tube, outer diameter 2 mm or better, working length 23 cm or better</li> <li>• Suction and coagulation Cannula, outer diameter 3 mm, working length 26</li> </ul>	

		<p>cm or better, for use with unipolar High Frequency Cords</p> <ul style="list-style-type: none"> <li>• High Pressure Syringe, for viscous fluid injection Consisting of: High Pressure Handle, for use with Syringe Holder adaptor, for injection of viscous fluid, for filling, plastic syringe (package of 3) Plastic Syringe, 1 ml, for single use,(Package of 100)Syringe Holder, for plastic syringe, (Package of 3) Injection Cannula, Lock outer Diameter of syringe 1.3 mm, Inner diameter 0.7 mm, working length 23 cm, Package of 3</li> <li>• Cold Light Fountain HALOGEN or equivalent with automatic switch-in spare lamp,</li> <li>• Light source must be compatible with the equipment and from the same manufacturer</li> <li>• Power Supply: 220 VACS, 50Hz.</li> <li>• Power card ii) fiber optic cable length 180 cm or better</li> </ul>	
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S#	Nomenclature	Specification	Qty
1	Air Drill with Cylinder/Orthopedic pneumatic drill with cylinders.	<ul style="list-style-type: none"> <li>• Modular Hand Piece</li> <li>• Pneumatic hand piece with forward, safe and reverse activated on hand piece. Speed and torque variable with different attachment gear system. Twist Lock quick change attachment</li> <li>• Progressive Trigger Action</li> <li>• Cannulations 4 to 5mm</li> <li>• Chuck with Key</li> <li>• Attachment 1/4 Jacobs Chuck Size 1/4 (4 to 6.35mm)</li> <li>• Fully Cannulated to 4 to 5.1mm</li> <li>• Maximum Speed 900 to 1250 rpm or better</li> <li>• Attachment 4.00 mm Jacob Chuck Size 5/32 (4.0mm)</li> <li>• Fully Cannulated</li> <li>• Quick Coupling Chuck</li> <li>• AO Small attachment Stainless Steel</li> <li>• Cannulations 2 to 3.25mm</li> <li>• AO Large attachment Stainless Steel</li> <li>• Cannulations 2 to 3.25mm</li> <li>• Hudson Reaming Adaptor</li> <li>• 5:1 Hudson Reamer Attachment Stainless Steel</li> <li>• 4.0 mm or better Cannulations</li> <li>• 5:1 Large AO Reamer Attachment Stainless Steel</li> <li>• 4.0 mm or better Cannulations</li> <li>• 5:1 Reamer attachment</li> <li>• <u>Wire Driver</u></li> <li>• Wire Driver Attachment</li> <li>• Cannulations .8 to 4 mm diameter</li> <li>• Maximum Speed 900 to 12500 rpm or better</li> <li>• <u>Pin Driver</u></li> <li>• Pin driver attachment</li> <li>• Maximum Speed 1250 rpm or better</li> <li>• Pneumatic Oscillating Saw</li> <li>• Operate-able in different positions</li> <li>• Speed Variable 0-14000 rpm or better</li> <li>• Blade Oscillation Arc 4 degree</li> <li>• Saw Blade for Oscillating</li> <li>• St Oscil Blade 13.5 x 64 x .6mm, Box of 5</li> <li>• St Oscil Blade 71mm x 19.5mm x 1.2, Box of 5</li> <li>• St Oscil Blade 71mm x 33mm x 1.2mm, Box of 5</li> <li>• St Oscil Blade 71mm x 19.5mm x 8mm, Box of 5</li> <li>• Leg Bone Osc Blade 12.5x73.8 x 63, 1.06mm, Box of 5</li> <li>• St Oscil Blade 19.5mm x 86mm x 0.8mm, Box of 5</li> <li>• St Oscil Blade 8.5mm x 38mm x 0.4mm, Box of 5</li> <li>• St Oscil Blade 25.4 x 90 x 1.27mm sterile, Box of 5</li> <li>• Leg Bone Osc Blade 9.5 x 30 x 0.64, 0.84mm, Box of 5</li> <li>• Universal House, 10"</li> <li>• Nitrogen Regulator Single Connection</li> <li>• Pressure Sentinel I/M Reamers for Hand And Power</li> <li>• Can be operated at forward and reverse mode</li> <li>• Size 6mm to 19mm</li> <li>• Individual complete reversible with tip and solid shaft</li> <li>• T-handle for hand reaming</li> <li>• Sterilization container</li> </ul> <p>Complete with Air hose connector, cylinder (Full Size) and pressure regulator.</p>	
2	Fracture Operation Table with Ortho Traction Attachment	<ul style="list-style-type: none"> <li>• General Design</li> <li>• Stable base construction with four castors for easy movement.</li> <li>• Manual base brake, lateral tilt and Trendelenburg adjusted by hand crank, base cover, side rails, accessories &amp; clamps made of stainless steel.</li> <li>• Table Top</li> <li>• Divided into 5 sections including head plate, back plate, seat plate and split leg plates. Table top elevation controlled by hydraulic system, with sliding table top 30 cm or more for unrestricted image intensifier access with 360 degree rotation. With side rails for the insertion of X-Ray cassettes (must</li> </ul>	

		<p>equipped with acrylic sheet plates for X-ray radiography).</p> <ul style="list-style-type: none"> <li>Length 190-200 cm or better</li> <li>Width 50 cm or better</li> <li>Height 75-95 cm or better cm</li> <li>Trendelenburg / Reverse Trendelenburg+20°/30°each</li> <li>Lateral Tilt Left/Right 2°/20°each</li> <li>Head plate +40°/-40°</li> <li>Standard Accessories:</li> <li>Mattress set. Pair of arm rest with quick dis-connectable clamps.</li> <li>Designed for easy installation and removal.</li> <li>Adjustable head rest. Pair of shoulder supports.</li> <li>Lithotomy pole with universal swivel clamps.</li> <li>Anesthesia frame 1 each</li> <li>Infusion rod 1 each</li> <li>Foot rests 2 each.</li> <li>Side supports 2 each</li> <li>With inbuilt Kidney Elevator Facility.</li> </ul> <p><u>Attachment:</u></p> <ul style="list-style-type: none"> <li>Traction stopper with mattresses.</li> <li>Castor with break device</li> <li>Vertical evaluator lock handle.</li> <li>Traction crank</li> <li>Reaction foot boot..</li> <li>The tractor range is 200 mm and elevation range 200 mm.</li> </ul>	
3	Plaster Cutting Electric Saw	<ul style="list-style-type: none"> <li>High oscillating speed: 16000osc/min</li> <li>Low oscillating speed: 11800osc/min</li> <li>Voltage: 220 volts, 50HZ</li> <li>Sound level: 70 dB or less</li> <li>Along with adopter having Output to saw: 22/29 V</li> <li>Supply frequency: 50Hz</li> </ul>	
4	Mobile C-Arm/ Image Intensifier (Fluoroscopy)	<ul style="list-style-type: none"> <li>Mobile C-Arm Image Intensifier with microprocessor controlled &amp; High frequency, X-Ray Generator,</li> <li>Output Power : 3.5 KW or better</li> <li>Radiography &amp; Fluoroscopy KV : 40-110 KV or better</li> <li>Continuous Fluoroscopy mA maximum : 4 mA or better</li> <li>System should have ABC or AEC control</li> <li>System should have auto-Mode and Manual mode for user in fluoroscopy</li> <li>One Shot Fluoroscopy : 7 mA for one second or better</li> <li>Radiography mA: 60 mA or better</li> <li>Tri-mode 9 inch Image Intensifier (brand model must be mentioned) N=9 inch , M1=6 inch , M2=5 inch ,</li> <li>Digital CCD Camera with 1Kx1K lines ( brand must be mentioned)</li> <li>Rotating Anode Double Focus x-ray tube 40 KHU or better</li> <li>Focal spot 0.6/1.3 or better</li> <li>2 Nos medical grade TFT monitors on trolley</li> <li>Size:19 inch or better.</li> </ul> <p>Each with;</p> <ul style="list-style-type: none"> <li><b>Resolution:</b> 1280x1024 or better.</li> <li><b>Brightness:</b> 300 Cd/m2 or better.</li> <li><b>Contrast Ratio:</b> 2000:1 or better With <ol style="list-style-type: none"> <li>Brightness stabilization</li> <li>Back light sensor.</li> <li>Power saving mode &amp;</li> <li>USB Port.</li> </ol> </li> </ul> <p>Accessories: AC power cord, Signal Cable, USB cable.</p> <ul style="list-style-type: none"> <li>The system should have DIM minimum images storing capacity 60</li> <li>cassete holder tray for radiography</li> </ul> <p><b>C-Arm:</b></p>	

		<ul style="list-style-type: none"> <li>Orbital rotation should have 90/30° or better</li> <li>Horizontal travel 20cm or more</li> <li>Vertical travel 45 cm or more</li> <li>Swinging <math>\pm 12.^\circ</math> or better</li> <li>C-arm rotation <math>\pm 180^\circ</math> or better</li> </ul> <p><b>Power Requirement:</b></p> <ul style="list-style-type: none"> <li>220VAC , 50Hz</li> </ul> <p><b>Accessories for Protection:</b></p> <ul style="list-style-type: none"> <li>3 Apron lead thickness 0.5mm</li> <li>2 Thyroid shield lead thickness 0.5mm</li> </ul>	
5	Spica table.	<ul style="list-style-type: none"> <li>General Design</li> <li>Stable base construction with four castors for easy movement.</li> <li>Manual base brake, lateral tilt and Trendelenburg adjusted by hand crank, base cover, side rails, accessories &amp; clamps made of stainless steel.</li> <li>Table Top</li> <li>Divided into 5 sections including head plate, back plate, seat plate and split leg plates. Table top elevation controlled by hydraulic system, with sliding table top 30 cm or more for unrestricted image intensifier access, with side rails for the insertion of X-Ray cassettes (must equipped with acrylic sheet plates for X-ray radiography).</li> <li>Length 190-200cm or better</li> <li>Width 50cm or better</li> <li>Height 75-95 cm or better</li> <li>Trendelenburg/ Reverse Trendelenburg <math>+20^\circ/30^\circ</math> each</li> <li>Lateral Tilt Left/Right <math>2^\circ/20^\circ</math> each</li> <li>Head plate <math>+40^\circ/-40^\circ</math></li> <li>Standard Accessories:</li> <li>Mattress set. Pair of arm rest with quick is-connectable clamps.</li> <li>Designed for easy installation and removal.</li> <li>Adjustable head rest. Pair of shoulder supports.</li> <li>Lithotomy pole with universal swivel clamps.</li> <li>Anesthesia frame 1 each</li> <li>Infusion rod 1 each</li> <li>Foot rests 2 each.</li> <li>Side supports 2 each</li> <li>With inbuilt Kidney Elevator Facility.</li> <li>Foot Rests</li> <li>Side supports</li> </ul> <p><b><u>Technical Specification:</u></b></p> <ul style="list-style-type: none"> <li>Brake pedal</li> <li>Elevation crank</li> <li>Horizontal angle lock handle</li> <li>Rotation "Z" type angle</li> <li>Leg supporter and HIP supporter</li> <li>Traction stopper with mattress</li> <li>Caster with break device</li> <li>Vertical elevator lock handle</li> <li>Traction crank</li> <li>Reaction foot boot.</li> <li>The HIP supporting sheets are made by Bakelite sheet, with mattress for radiography and image intensification procedures.</li> <li>The HIP supporting sheet can be rotated 360° and the angle can be rotated 360° and elevation 300mm.</li> </ul> <p>The tractor range is 200mm and elevation range 200mm</p>	

**Category: Neonatology Equipment**

S#	Nomenclature	Specification	Qty
1	Baby Incubator	<ul style="list-style-type: none"> <li>Incubator to have a large double Plexiglas hood with excellent dual viewing panels mobile on lockable castors.</li> <li>Temperature range: 34 to 37 degree C.</li> <li>To have an integrated sensor module to collect air and skin temperatures, oxygen, humidity and pass this information to the display.</li> <li>The sensor module to have a visual alarm to complement the controller alarm.</li> <li>The mattress base to be contoured, x-ray translucent.</li> <li>To be able to tilt <math>\pm 10</math> degrees.</li> <li>The hood to have four doors, two on either side or one 'iris'. Openings with 4 tubing access ports.</li> <li>The unit to have the temperature, oxygen level and humidity to preset levels.</li> <li>To have an alarm for all of these parameters with a low initial alarm intensity to avoid undue disturbance.</li> <li>Oxygen to be able to be calibrated from 25% to 100%,</li> <li>The humidity module to be front loading and to need filling daily.</li> <li>The mattress tilts control to be knobs on the base.</li> <li>Noise should be less than 50dbi.</li> <li>Monitoring shelf,</li> <li>Telescopic IV stand.</li> <li>Cylinder holder</li> <li>Ventilator tube support</li> </ul>	
2	Phototherapy Unit	<ul style="list-style-type: none"> <li>Flexible positioning</li> <li>LED type</li> <li>Luminosity: More than 4,300 lux at a distance of 40cm</li> <li>Irradiation timer :LCD 6-digit or more 0 ~99999.9hr; Patient timer</li> <li>Inclination angle: Freely adjustable from horizontal to vertical</li> <li>Placement: Directly on the incubator /beds.</li> <li>Power requirements: 220 V, 50Hz;</li> <li>Accessories: Eye Cover</li> </ul>	
3	Infant Warmers (Radiant Warmer)	<p>Mobile infant warmer with integrated baby bassinet unit that Accommodates use of resuscitation equipment for intensive care of neonate.</p> <p><u>Technical Specification: -</u></p> <ul style="list-style-type: none"> <li>Infant warmer system to provide controlled source of radiant heat for infant.</li> <li>Dual Temperature Control (Skin and Cot)</li> <li>Heater output up to 750Watt at maximum power setting.</li> </ul> <p><u>Temperature Adjustment:</u></p> <ul style="list-style-type: none"> <li>Skin Temperature adjustment: 34°C ~ 37°C,</li> <li>Bed temperature adjustment: 20°C ~ 37°C, Steps 0.1°C</li> <li>Microprocessor controlled skin servo mode operation with digital display</li> <li>Digital display for Infant Temperature</li> <li>Apgar score facility</li> <li>Audible and visual alarms and automatic switch off if temperature reaches at 38°C.</li> <li>Built-in examination light</li> <li>Built-in air/gas driven venture suction system</li> <li>Tilting large bed platform suitable for x-ray cassettes, with cassette holder.</li> <li>Bed with mattress that is tiltable and having Trendelenburg and reverse Trendelenburg position.</li> <li>Accessible from all sides with acrylic collapsible side panels</li> <li>Trolley with 4 Lockable castors.</li> <li>Power Requirement: 220~V, 50Hz</li> </ul> <p><u>Accessories</u></p> <ul style="list-style-type: none"> <li>Complete infant resuscitation package with mounting bracket (resuscitation module, flow meter, infant suction unit, suction regulator, suction bottle/400ml, positive pressure resuscitation, air hose, and oxygen cylinder medium size).</li> <li>Skin probe reusable.</li> <li>Cot temperature sensor</li> <li>Infant face masks (Large, Medium, Small)</li> </ul>	

4	Baby Suction Machine	<ul style="list-style-type: none"> <li>• Performance : suction controlled 0-25mmHg</li> <li>• Input voltage 220v, 50HZ</li> <li>• Controls : On/Off switch</li> <li>• Safety : positive pressure restricted</li> <li>• With filter.</li> <li>• Complete with autoclave able receiver jar 2x2000 ml</li> <li>• Foot switch: 1 No</li> <li>• Suction tip: 1 No</li> <li>• Ground cable: 1 No</li> <li>• Suction pipe 2m with hose.</li> <li>• Mobile on four antistatic castors</li> <li>• With the over flow safety</li> </ul>	
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**Category: Ophthalmology Equipment**

S#	Nomenclature	Specification	Qty
1	B. Scan	<p><b><u>Ophthalmic ultra sound for A -scan biometry, B –scan with pachymetry</u></b></p> <p><b><u>B-mode:</u></b></p> <ul style="list-style-type: none"> <li>• Gain adjustable 20 -110db or better on either side.</li> <li>• TGC 0-30db or better.</li> <li>• Dynamic range 25 – 80db or better on either side.</li> <li>• <b><u>Probe:</u></b> 12 MHz or better.</li> <li>• <b><u>Scanning angle:</u></b> 30 to 60 degree or better.</li> <li>• <b><u>Focal distance:</u></b> 15 – 262 mm.</li> </ul> <p><b><u>Biometry:</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Probe</u></b> 10 MHz or better.</li> <li>• <b><u>Depth</u></b> 1 - 50 or better.</li> <li>• Operating modes cataract, aphakic, phakic and manual.</li> <li>• Calculation: SRK, SRK II, HOLLADAY,SRK/T.,HOOVER-Q ,POST REFRACTIVE ,HAIGIS.</li> </ul> <p><b><u>PACHYMATRY:</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>PROB:</u></b> 50Mhz</li> <li>• Measurement range: 110 -1500 micro meters or better on either side.</li> <li>• Operating mode: auto/manual.</li> <li>• Maps: automatic, continuous, scanning and more if any.</li> </ul> <p><b><u>A scan :</u></b></p> <ul style="list-style-type: none"> <li>• Probe: 8Mhz or better.</li> <li>• With amplification curve, test and calibration.</li> </ul> <ul style="list-style-type: none"> <li>• With High density scanning sectors</li> <li>• With Axial length measurements and IOL power calculations.</li> <li>• Measurement accuracy for dense cataract and existing hazy media improved by pressing dense cat switch and gate select switch.</li> <li>• Easy data transfer.</li> <li>• With integral or external printer (in case of external printer brand model must be mentioned).</li> <li>• 15" or better color touch screen monitor.</li> <li>• Time gain suspension. '</li> <li>• Image line real time replay function.</li> <li>• With A, B, B+A, B+B features.</li> </ul>	
2	Tonometer	Perkins application tonometer with two prisms and weights complete in case.	
3	Phaco Emulsification Machine having facility of interior vitrectomy and wet bipolar cautery.	<p><b><u>Phaco Emulsification Machine having facility of anterior viteractomy and wet bipolar cautery.</u></b></p> <p><b><u>FEATURS</u></b></p> <ul style="list-style-type: none"> <li>• Gravity fed fluid delivery</li> <li>• Suction: aspiration pump type</li> <li>• Single or reusable tubing</li> <li>• Vacuum range: 5-500 mmHg</li> <li>• Flow rate: 2-50cc/minute</li> <li>• Rise time : 25 level in US mode</li> <li>• Control: Panel are linear control with foot switch facility</li> <li>• Operating frequency:40KHz</li> <li>• Operating modes: single, continues or multiple bursts</li> <li>• Hand piece: Piezo Electric Hand piece</li> <li>• Control: Panel or linear switch control by foot switch facility</li> <li>• Tips and sleeves range: wide range of tips and sleeves.</li> </ul> <p><b><u>Viteractomy</u></b></p> <ul style="list-style-type: none"> <li>• Cutter type: Guillotine cutters</li> <li>• Cutting range: single or repetitive.</li> <li>• Control: Panel or linear cut rate control by foot switch</li> </ul> <p><b><u>Diathermy</u></b></p>	

		<ul style="list-style-type: none"> <li>Bipolar type, Control: Panel or liner control by foot switch technique</li> <li>Hand piece 02 Nos</li> <li>Standard size tip 30"- 10 Nos. 45"- 05Nos.</li> <li>Double liner foot switch: 01No.</li> <li>Phaco tip wrench - 01No.</li> <li>Drainage bag- 05Nos.</li> <li>Irrigation/aspiration tubing sets 06 Nos.</li> <li>Test Chamber - 10 Nos.</li> <li>Sleeves – 10 Nos.</li> <li>Standard anterior vitrectomy cutters – 10Nos.</li> <li>Sterilization trolley – 2 Nos.</li> <li>Diathermy wet bipolar cautery cable – 2Nos.</li> <li>Diathermy Forceps – 2 Nos.</li> <li>Original Trolley/and or original council from the same manufactures.</li> <li>Voltage corrector/stabilizer or appropriate ratings meeting input and output voltage and frequencies.</li> <li>Comprehensive training for staff and support services of familiarity with the system.</li> <li>User/Technical/Maintenance manuals to be provided in English. The unit shall be capable of being stored at ambient Temperature and humidity.</li> </ul>	
4	Auto Refractor with Karatometer	<ul style="list-style-type: none"> <li>Technical Specification: <u>Refraction measurement.</u></li> <li>Sphere -30 TO 22D OR better (VD 10mm) (0.01/0.12/0.25D step).</li> <li>Cylinder 0 to <math>\pm 10D</math> or better (0.01 / 0.12 / 0.25D step).</li> <li>Axis Angle 0 to 180° or better (1° step).</li> <li><u>Measurement of Corneal Radius:</u></li> <li>Curvature radius 5.0-10.0mm or better (0.01mm step).</li> <li>Cylindrical power 0-<math>\pm 10D</math> or better.</li> <li>Axis Angle 0-180 degree (1 degree step or better).</li> <li>Pupil diameter measurement range: <math>\varnothing</math> 2.0mm – <math>\varnothing</math> 8.5mm or better.</li> <li>Vertex distance: 0, 10, 12, 13.5, 15mm or better.</li> <li>PD Measurement range 0-85 mm (1mm step)</li> <li>Auto start. Auto Focus / auto track. Printer.</li> <li>In built Thermal Printer with automatic cutter (width 57 mm)</li> <li>LCD display: color 5.7 Inch or better.</li> <li>Movable Distance. Back / Forth <math>\pm 17</math> mm</li> <li>Right / Left <math>\pm 43</math>mm up / down <math>\pm 17</math>mm.</li> <li>Chin rest. <math>\pm 25</math> mm or better.</li> <li>Output. RS 232 C interface.</li> <li>Power saves: OFF, 3, 5, 10 min</li> <li>(Selectable) Standard Accessories: Test eye; 1No.</li> <li>Printer paper: 3 Rolls: Chin rest Paper: 1 packs (1000 sheets). Chin rest pin: 2 No.</li> <li>Dust Cover: 1 No.</li> <li>Contact lens holder: 1 No.</li> <li>Operation manual.</li> </ul>	
5	Operating Microscope	<ul style="list-style-type: none"> <li>45 degree inclined binocular tube with converging optics</li> <li>Paired eye pieces 12.5 xs.</li> <li>Built in three step magnification changer.</li> <li>Motorized fine focusing with foot control.</li> <li>Objective f=175mm.</li> <li>Coaxial fiber optic illumination system with variable light intensity control.</li> <li>Light intensity: 80000 lux or better</li> <li>Standby lamp assembly.</li> <li>Heat proof, cobalt blue and green filters.</li> <li>Mobile floor stand with height adjustment through counter balanced arm.</li> </ul>	
6	Indirect Ophthalmoscope	<ul style="list-style-type: none"> <li>Brightness for difficult examinations</li> </ul>	

		<ul style="list-style-type: none"> <li>• Light intensity: 2000 lux or better.</li> <li>• With light intensity control.</li> <li>• Headband: Light weight and comfortable.</li> <li>• Single control to change aperture size and position in one movement to view through all pupil sizes.</li> <li>• Inbuilt IR and UV barrier.</li> </ul>	
7	Refraction Box	<ul style="list-style-type: none"> <li>• 35-Pairs-204 PCS and Universal Frame in Wooden carrying case.</li> <li>• Spheres: <math>\pm 0.12</math> to <math>\pm 20.00</math></li> <li>• Cylinders: <math>\pm 0.25</math> to <math>\pm 3.00</math></li> <li>• Firms: <math>\frac{1}{2}</math> to 6</li> <li>• Auxiliaries: Blue, Red, Green, Brown, Plane (2pcs)-glass.</li> <li>• Occluder, Pinhole 0.5, 1.0, 1.5mm – leach Slit Disc 0.5, 1.0mm-leach.</li> </ul>	
8	Slit Lamp	<ul style="list-style-type: none"> <li>• Galilean-Type Binocular Microscope.</li> <li>• Magnification Changer: Continuous Zoom by drum rotation.</li> <li>• Total magnification range: x5 to x30 or better.</li> <li>• Field of view: 8mm-22mm or better on either side.</li> <li>• Papillary Adjustment: 48-78mm or better.</li> <li>• Focus Distance: 100mm or more.</li> <li>• Diopter Adjustment: <math>\pm 6D</math>.</li> <li>• <b><u>Slit illumination:</u></b></li> <li>• Slit Width: 0-10 mm or more.</li> <li>• Aperture Diameter: 0, 3, 6, 5, 10, 14mm.</li> <li>• Slit Length: 0-14mm.</li> <li>• Slit Rotation: <math>\pm 90^\circ</math>.</li> <li>• <b><u>Base:</u></b></li> <li>• Vertical Movement: 30mm or more.</li> <li>• Longitudinal Movement: 70mm or more.</li> <li>• Lateral Movement: 110mm or more.</li> <li>• Fine Base Movement: <math>\pm 10</math>mm.</li> <li>• Input Voltage: 240V, 50Hz.</li> <li>• <b><u>Chin rest:</u></b></li> <li>• Vertical Movement: 75 mm or more.</li> </ul>	

**CATEGORY: BEDING CLOTHING**

**Selection will be Subject on sample**

S#	Name of Item	Specification	Qty
1	Mattress Foam with Raxine Cover	Size: 6 ½' x 3' x 4'' with Raxine cover, good quality Branded	
2	Blanket	Best quality, camel color,size:60'' x90''	
3	Bed Sheet	Made of best quality cotton ,single standard size:- 60'' x 100'' Color: White	
4	Pillow with cover	Standard size of best quality polythene Size: 24''x 15'' Along with pillow cover: Size: 26'' x 17'', White Latha	
5	OT Gown	Operation Gown Markeen Cloth, size: Small, Medium and Large	
6	OT Caps	Made of best quality , Color: Green	
7	OT Sheet	Made of best quality , Color: Green	
8	OT Shoes	Made of best quality, Slipper plastic leather.	
9	Table cover large	Made of best quality, Size: 54'' x 72''	
10	Table cover small	Made of best quality, Size: 48'' x 54''	

**Category: General Items**

**Selection will be on sample**

S#	Nomenclature	Specification	Qty
1	AC 1.5 tones Split unit inverter type with 10 KVA stabilizer (copper winded)	<ul style="list-style-type: none"> <li>Branded, Good Quality, 18000 BTU, inverter type with copper pipe, mounting brackets and installation. Brand and models of both the outdoor and indoor units must be mentioned</li> </ul>	
2	AC 1.5 tones Split unit with 10 KVA stabilizer (copper winded)	<ul style="list-style-type: none"> <li>Branded, Good Quality, 18000 BTU with copper pipe, mounting brackets and installation. Brand and models of both the outdoor and indoor units must be mentioned</li> </ul>	
3	AC 2 tones split unit inverter type with 10 KVA stabilizer (copper winded)	<ul style="list-style-type: none"> <li>Branded, Good Quality , 24000 BTU, inverter type</li> <li>With copper pipe, mounting brackets and installation. Brand and models of both the outdoor and indoor units must be mentioned</li> </ul>	
4	AC 2 tones split unit with 10 KVA stabilizer (copper winded)	<ul style="list-style-type: none"> <li>Branded, Good Quality , 24000BTU</li> <li>With copper pipe, mounting brackets and installation. Brand and models of both the outdoor and indoor units must be mentioned</li> </ul>	
5	AC Split 01 Ton split unit inverter type with 10 KVA stabilizer (copper winded)	<ul style="list-style-type: none"> <li>Branded, Good Quality, 12000 BTU, inverter type</li> <li>With copper pipe, mounting brackets and installation. Brand and models of both the outdoor and indoor units must be mentioned</li> </ul>	
6	AC Split 01 Ton split unit with 10 KVA stabilizer (copper winded)	<ul style="list-style-type: none"> <li>Branded, Good Quality, 12000BTU</li> <li>With copper pipe, mounting brackets and installation. Brand and models of both the outdoor and indoor units must be mentioned</li> </ul>	
7	Deep Freezer	<ul style="list-style-type: none"> <li>Good Quality, branded, double door (freezer &amp; fridge) with racks &amp; baskets</li> </ul>	
8	Geysers 250 litres	<ul style="list-style-type: none"> <li>Geysers 250 liters with cone, branded local,</li> </ul>	
9	OT Shoes (Pairs)	<ul style="list-style-type: none"> <li>OT Shoes (Pairs) rubber</li> </ul>	
10	Refrigerator 14 Cft	<ul style="list-style-type: none"> <li>Double door,14 Cft– Branded, Good Quality</li> </ul>	
11	Refrigerators 12 CFT	<ul style="list-style-type: none"> <li>Double door, 12 CFT – Branded, Good Quality</li> </ul>	
12	Refrigerators 18 Cft	<ul style="list-style-type: none"> <li>Double door, 18 Cft– Branded, Good Quality</li> </ul>	
13	Electric Water Cooler	Electric Water 55 gallons SS Tank to be installed with 3 part Filtration unit, branded.	
14	Cupboard Steel Large	<ul style="list-style-type: none"> <li>18 gauge steel powder coated with shelves on one side and hanging unit on one side. Size 4 ftx 6 ftx 2 ft(W x H x D)</li> <li>Sample to be approved</li> </ul>	
15	File Cabinets Steel	<ul style="list-style-type: none"> <li>18 gauge steel, filing cabinet with three drawers each 450mm height with railing handles, locks and 100mm high pedestal as shown in the drawing,</li> <li>Including power coating with good surface finish</li> <li>Size 400 x 750mm x 1400mmHigh</li> </ul>	
17	Steel Racks for Medicine	<ul style="list-style-type: none"> <li>Large storage capacity on 12 adjustable shelves, each size 435 x250 mm.</li> <li>The cupboard to have an internal height of 1720mm</li> <li>Security achieved by 2 heavy-duty locks, securing on the central partition.</li> </ul>	
20	UPS 4000 watts with	Capacity-5 KVA Input Voltage-230V AC, Single Phase,	

	battery	<p>Input Voltage Range-160V AC to 270 V AC</p> <p>Input Frequency Range – 45 to 55Hz</p> <p>Input Over Voltage Protection-280V AC</p> <p>Input under Voltage Protection-155V AC Over Voltage cut off facility</p> <p>Frequency-50 Hz+-1%</p> <p>DC output voltage 24 volts</p> <p>Input &amp; output voltage indicators Re-charging alarm</p> <p>Along with 02 branded batteries, 12 volts, 200 Ah each Complete with installation.</p>	
21	AIR PURIFICATION SYSTEM	<ul style="list-style-type: none"> <li>• Automatic air purification system</li> <li>• Air purification system for the removal of bacteria, viruses, and gases from indoor areas of hospitals, OT/ICU and Wards.</li> <li>• Air Cleaning capacity 2000 Cubic feet per hour or more</li> <li>• Should have filter less technology</li> <li>• Minimum particle removal size 0.001 um or less.</li> <li>• Cleaning efficiency 99.99 % or more.</li> <li>• Sound level 46 dB or less.</li> <li>• Unit should be wall mounted type</li> <li>• Input Power 220VAC, 50Hz</li> </ul>	

**Category: Dental Equipment**

S#	Nomenclature	Specification	Qty
1	Electric Amalgamator	<ul style="list-style-type: none"> <li>• Microprocessor controlled</li> <li>• Touch pad controls</li> <li>• LED Display</li> <li>• Programmable preset memories</li> <li>• Spring tensions, molded capsule holder</li> <li>• Timer 1-30seconds</li> <li>• Cycle speed 4200 CPM - 3600CPM</li> <li>• Sealed mix area</li> <li>• Accept salt types of capsules including amalgam and ionomer.</li> <li>• Power requirements: 220 volts,50.</li> </ul>	
2	Electric cautery (Dental)	<ul style="list-style-type: none"> <li>• 3 different and separate operating functions:</li> <li>• 1-purecut</li> <li>• 2-cut-coag</li> <li>• 3-pure coag</li> <li>• Maximum safety for the patient and The electrosurgical units supplied complete accessories:</li> <li>• Hand piece, 8 electrodes and ground plate autoclavable.</li> <li>• Voltage: 220 V 50.</li> <li>• Power output at 750 KHz on 1500W</li> </ul>	
3	Dental Unit with chair	<p>Comprising of:-</p> <ul style="list-style-type: none"> <li>• Dental Unit Chair mounted fully motorized and electrically operated.</li> <li>• Air turbine high speed branded ( model must be mentioned)</li> <li>• Air motor (3 in1) slow speed with contra angle attachment branded ( model must be mentioned)</li> <li>• Triple syringe branded</li> <li>• Scalar Piezzo type,( model must be mentioned)</li> <li>• Dental Light</li> <li>• Automatic Cup filler</li> <li>• X-ray film viewer</li> <li>• Stainless steel instrument Tray with S.S.lid.</li> <li>• Cotton holder</li> <li>• Waste receptacle</li> <li>• Oil free branded compressor (model must be mentioned) with tank and regulator.</li> <li>• Motor;1.5 HP</li> <li>• Output;100L/min</li> <li>• Pressure;5-8 Bars</li> <li>• Tank capacity;25 L</li> </ul> <p><u>Assistant Unit:-</u></p> <ul style="list-style-type: none"> <li>• Cuspidor bowl with flush system (spittoon)</li> <li>• Saliva ejector</li> <li>• High Power Suction system (Air operated)</li> <li>• Triple Syringe</li> </ul> <p><u>Dental Chair:</u></p> <ul style="list-style-type: none"> <li>• Fully automatic motorized Hydraulic chair electrically Operated,</li> <li>• 5 or more positions, operated on 220V / 50Hz</li> <li>• Motorized motion to raise / lower the seat and back by electro- hydraulic System.</li> <li>• Automatic Back to Zero Position.</li> <li>• Equipped with safety cut out device</li> <li>• Adjustable head rest forward/ backward and up /down movements</li> <li>• Right arm swings in / out for patient ease.</li> <li>• Chair movement is smooth and silent through solenoid valves.</li> </ul> <p><u>Dental Light:</u></p> <ul style="list-style-type: none"> <li>• Day light Shadow less dental light.</li> <li>• The light arm is well balanced and adjustable to different heights with variable horizontal and inverse movements.</li> </ul> <p><u>Doctor's Tray:</u></p> <ul style="list-style-type: none"> <li>• Moveable over the patient through swing in / out on flexible self-supporting balance arm.</li> </ul>	

		<ul style="list-style-type: none"> <li>• Instrument tray covered with stainless steel lid.</li> <li>• Availability of 4-tubings (Borden 2 holes)</li> <li>• Cotton holder and waist receptacle.</li> <li>• Water on / off Toggle switch and flow control Air / water regulator for hand pieces and triple syringe.</li> <li>• Air pressure gauge.</li> <li>• X-ray viewer.</li> <li>• <u>Cuspidor unit:</u></li> <li>• Water outlet services with junction / utility box.</li> <li>• Equipped with automatic and manual cup filler.</li> <li>• Single piece spittoon with solid collector</li> <li>• Bowls flush automatic and manual.</li> <li>• Triple syringe,</li> <li>• Saliva ejector</li> <li>• High power suction (Air operated)</li> <li>• <u>Dentist + Assistant Stool:</u></li> <li>• Gas operated Seat with Shock absorbing.</li> <li>• Adjustable at any height by lever control.</li> <li>• Anatomically designed back rest for maximum lumbar support.</li> <li>• Seat with back rest rotatable freely 360deg.</li> <li>• Mobile on 5-castor for smooth movement</li> <li>• With foot supporting facility.</li> </ul>	
4	Dental X-ray Unit	<ul style="list-style-type: none"> <li>• Dental radiographic unit.</li> <li>• Current: 7mA intra-oral x-ray system.</li> <li>• Maximum voltage: 65KV or better.</li> <li>• The Unit shall be mounted on a stand having 360° horizontal rotation.</li> <li>• Also the multiplex arm has a variety of vertical movements.</li> <li>• Mobile on castors.</li> </ul>	
5	Mini Autoclave automatic	<ul style="list-style-type: none"> <li>• Capacity 12 liters or more (Bench top)</li> <li>• Microprocessor controlled</li> <li>• digital display</li> <li>• Automatic functioning</li> <li>• Thermodynamic initial vacuum</li> <li>• Thermal drying system</li> <li>• Sterilization temperature: 121°C to 134°C</li> </ul>	

**Category: Dental Instruments**

**Selection will be on sample**

**Note: All instruments must be stainless steel. All die made with hidden joints and leak proof. Manufacturer mark must be present on each instrument**

S#	Nomenclature	Specification	Qty
1	Amalgam gum (filling)	<ul style="list-style-type: none"> <li>All die made with hidden joints and leakproof.</li> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
2	Amalgam plugger		
3	Amalgam plugger (filling)		
4	Anesthesia Cartridges (Box of 50)		
5	Artery forceps strength	<ul style="list-style-type: none"> <li>For all instruments made of stainless steel.</li> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
6	Baby forceps & lowers		
7	Barbed broaches	<ul style="list-style-type: none"> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments</li> </ul>	
8	Bone cutter	<ul style="list-style-type: none"> <li>For all instruments made of stainless steel.</li> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
9	Bone H-Files	<ul style="list-style-type: none"> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments</li> </ul>	
10	Bone Rengeur		
11	BP Scalpel handle for blade 15	<ul style="list-style-type: none"> <li>For all instruments made of stainless steel.</li> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
12	Bur for high speed turbine set of 12		
13	Burnisher filling	<ul style="list-style-type: none"> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments</li> </ul>	
14	Cartridge Syringes with Aspirating facility		
15	Cement spatula		
16	Cheek retractor (Oral)	<ul style="list-style-type: none"> <li>For all instruments made of stainless steel.</li> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
17	Cotton drum for sterilization		
18	Curette		
19	Dental Instrument complete Set	<ul style="list-style-type: none"> <li><b>INSTRUMENT SET DENTAL SURGERY</b></li> <li>Basic instrument set for use in the dental surgery room.</li> </ul> <p><b>Description</b></p> <ul style="list-style-type: none"> <li>Probe single ended perio CPTN-C</li> <li>Spatula double ended No 8</li> <li>Spatula double ended No 3</li> <li>Spatula double ended 8 x Alginate/Plaster metal Curved</li> <li>Instrument for plastics</li> <li>Excavator double ended 127/128</li> <li>Excavator double ended 131/132 tissue tweezers type Collage Fig 8 plain</li> <li>Carver Ward 2</li> <li>Scalar balanced gripH4</li> <li>Scalar balanced gripH5</li> <li>Scalar balanced gripH7</li> <li>Scalar balanced gripH9</li> <li>Scalar balanced grip Towner U15</li> <li>Scalar balanced grip Jaquette 2 Scalar</li> <li>balanced grip Jaquette 3</li> <li>Scaler balanced grip H6/7</li> <li>Scaler Octagonal H4</li> <li>Scaler Octagonal H5</li> <li>Scaler Octagonal H6</li> <li>Scaler Octagonal H8</li> <li>Scaler Octagonal H9</li> <li>Scaler OctagonalTownerU15</li> <li>Scaler Octagonal Jaquette 2</li> <li>Scaler Octagonal Jaquette3</li> <li>ScalerGracey Curette double ended ½</li> <li>ScalerGracey Curette double ended ¾</li> </ul>	



		<ul style="list-style-type: none"> <li>• Scaler Gracey Curette double ended 5/6</li> <li>• Scaler Gracey Curette double ended 9/10</li> <li>• Scaler Gracey Curette double ended 13/14</li> <li>• Scaler MacFarlane Balanced Tip MFO/1</li> <li>• Scaler MacFarlane Balanced Tip MF2/3</li> <li>• Scaler MacFarlane Balanced Tip MF4/5</li> <li>• Burnisher DE AM (W) 1</li> <li>• Burnisher DE AM (W) 1L</li> <li>• Amalgam Plugger Blacks 0/1</li> <li>• Amalgam Plugger Blacks 1/2</li> <li>• Elevator Apical Straight</li> <li>• Elevator Apical Left</li> <li>• Elevator Apical Right</li> <li>• Elevator Coupland 1</li> <li>• Elevator Coupland 2</li> <li>• Elevator Coupland 3</li> <li>• Elevator Warwick James Straight</li> <li>• Elevator Warwick James Left</li> <li>• Elevator Warwick James Right</li> <li>• Elevator Cryer 30 left</li> <li>• Elevator Cryer 31 right</li> <li>• Forceps Artery Spencer Wells 5" straight</li> <li>• Forceps Artery Spencer Wells 5" curved</li> <li>• Forceps Mosquito 5" straight</li> <li>• Forceps Extraction Upper Incisor</li> <li>• Forceps Extraction Upper Molars Right</li> <li>• Forceps Extraction Upper Molars Left</li> <li>• Forceps Extraction Lower Molars</li> <li>• Forceps Extraction Lower Roots</li> <li>• Forceps Extraction Small Lower Roots</li> <li>• Forceps Extraction Lower Premolars</li> <li>• Forceps Extraction Upper Roots</li> <li>• Forceps Extraction Children Lower Teeth</li> <li>• Forceps Extraction Children Lower Molars/General Forceps</li> <li>• Extraction Children Upper Incisors/Canines Forceps</li> <li>• Extraction Children Upper Molars</li> <li>• Forceps Extraction Children Upper General</li> <li>• Amalgam Plugger Blacks 0/1</li> <li>• Luxation Kit</li> <li>• Ceram color Probe No 6</li> <li>• Margin Trimmer 15-11</li> <li>• Placer Calcium Hydroxide 15-90</li> <li>• Gingival Cord Packer Yardley 15-66-6</li> <li>• Root Canal Spreader Heat Carrier Anterior Root</li> <li>• Canal Spreader Heat Carrier Posterior</li> <li>• Periosteal Elevator Prichard</li> <li>• Periosteal Elevator Molt</li> <li>• Periosteal Elevator Fine</li> <li>• Periosteal Elevator Howard</li> <li>• Forceps Tissue Sempkin-Taylor Straight 12.5cm</li> <li>• Retractor tissue Austin</li> <li>• Retractor Tongue and Cheek University of Minnesota</li> <li>• Needle Holder Mayo Hegar 16cm</li> <li>• Forceps Halsted Mosquito Curved 12cm</li> <li>• Forceps Halsted Mosquito Straight 12cm</li> <li>• Tray Dental Instrument Imperforated 28 x 18 cm</li> <li>• Mirror Handles Round Stainless Steel</li> <li>• Mirror Heads No 4 plane (12)</li> <li>• Explorer single Ended EXS 6</li> <li>• Explorer Single Ended EXS 6A</li> <li>• Matrix System Intro</li> <li>• Scissors Straight 5" Sharp/Sharp</li> <li>• Scissors Straight Crown Bee Bee No 12</li> <li>• Scissors Curved Crown Bee Bee No 9</li> <li>• Syringe Dental Cartridge S/S 2.2 ml</li> </ul>	
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		<ul style="list-style-type: none"> <li>• Amalgam Carrier 5X Hampel</li> <li>• Complete Mortar &amp; Pestle Glass 2 " Dia.</li> <li>• Dappen Dish Glass Clear Glass slab</li> <li>• Spatula mixing filling material</li> <li>• Mixing Pad reusable</li> </ul>	
20	Dental rabe double ended	<ul style="list-style-type: none"> <li>• For all instruments made of stainlesssteel.</li> <li>• All die made with hidden joints and leak proof.</li> <li>• Manufacturer's mark must be indicated on all instruments.</li> </ul>	
21	Dental X-Ray developing & fixing material	<ul style="list-style-type: none"> <li>• All die made with hidden joints and leak proof.</li> <li>• Manufacturer's mark must be indicated on all instruments.</li> </ul>	
22	Dental X-ray Hanger	<ul style="list-style-type: none"> <li>• For all instruments made of stainless steel.</li> <li>• All die made with hidden joints and leak proof.</li> <li>• Manufacturer's mark must be indicated on all instruments.</li> </ul>	
23	Diamond burs Air motor		
24	Diamond Burs for High Speed Tissue, Round tissue on inverted cone		
25	Elevator Angular Pair		
26	Elevator Cross Bars Pair		
27	Elevator Pair of Cryers		
28	Elevator Straight		
29	Endomate DT		
30	Engoaopntic box		
31	Examination Forceps Lower Anterior		
32	Examination Forceps Lower BDR		
33	Examination Forceps Lower Molar		
34	Examination Forceps Lower Pre-Molar		
35	Examination Forceps Upper Anterior		
36	Examination Forceps Upper BDR		
37	Examination Forceps Upper Pre-Molar	<ul style="list-style-type: none"> <li>• For all instruments made of stainless steel.</li> <li>• All die made with hidden joints and leak proof</li> </ul>	
38	Examination instrument set like	Manufacturer's mark must be indicated on all instruments.	
39	Examination Mirror		
40	Examination probe Upper BDR		
41	Examination probe Upper Molar		
42	Examination Tweezers		
43	Excavator		
44	Extraction forceps kit (Complete) Adult		
45	Extraction forceps kit (Complete) Paeds		
46	Extraction forceps Lower		
47	Extraction forceps Upper		
48	Extraction probe Upper		
49	Filling Instruments		
50	Filling material		
51	Flexo files (size 15-140)		
52	Gats Gliden Drills		
53	Glass slab		
54	Gummers Spatula		
55	GuttaPurchaCondensor		
56	Instruments holding forceps		

57	Inter dental wedges (plastic & wooden)	<ul style="list-style-type: none"> <li>For all instruments made of stainless steel or otherwise.</li> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
58	Ivory type		
59	Ivory type retainer		
60	k-files size (15-140)		
61	Kidney tangs		
62	Larex type retainer		
63	Legenback retractor		
64	Lower Incisors		
65	Lower Molar Right		
66	Lower pre-molar		
67	Lower root forceps		
68	Matrix retainer Ivory 1&8		
69	Menox type		
70	Mortar & Pestle		
71	Mouth gauge		
72	Mouth mirrors with handle		
73	Mouth Prop		
74	Pair of Scissors		
75	Periosteal elevator (Oral)		
76	Pins & posts with all accessories (different sizes)		
77	Plastic Cellulose Strips	<ul style="list-style-type: none"> <li>For all instruments made of stainless steel or otherwise.</li> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments.</li> </ul>	
78	plastic instruments (filling)		
79	Polishing kit (for amalgam & composite filling)		
80	Root canal plunger		
81	Small needle holder	<ul style="list-style-type: none"> <li>For all instruments made of stainless steel.</li> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments</li> </ul>	
82	Smooth broaches		
83	Steel matrix bands (different sizes)		
84	Tooth extraction forceps (full set)		
85	Toothed dissecting forceps		
86	Upper Incisors		
87	Upper Molar left		
88	Upper Molar right		
89	Upper pre-molar left		
90	Upper root forceps		
91	Water filter for Dental unit	<ul style="list-style-type: none"> <li>Fully motorized and electrically operated water filter for dental unit with automatic Cup filler</li> </ul>	
92	Metazoan Bum Scissors 8-1/2"	<ul style="list-style-type: none"> <li>For all instruments made of stainless steel.</li> <li>All die made with hidden joints and leak proof.</li> <li>Manufacturer's mark must be indicated on all instruments</li> </ul>	

**Category: Gynae/Obs**

S#	Nomenclature	Specification	Qty
1	CTG Machine	<ul style="list-style-type: none"> <li>• With LCD display,</li> <li>• Fetus heart rate: 120-160bpm.</li> <li>• Manual/auto recording Fetus movement.</li> <li>• Sound and color alarm for high and low fetal heart rate</li> <li>• Continuous 24 hrs real time monitoring function,</li> <li>• 12 hrs patient curve and data storage,</li> <li>• With picture freeze function.</li> <li>• Single, twins monitoring.</li> <li>• 9 crystal board band pulsed wave transducer.</li> <li>• High resolution built in thermal recorder.</li> <li>• Built in communication port, for connecting to the central monitoring system.</li> <li>• Voltage AC120V, 50Hz.</li> <li>• Output speed: 1 cm/min, 2cm/min, 3 cm/min.</li> <li>• Data precision: +-5% (X roll), +-1 % (Y roll).</li> <li>• Ultrasound Probe :</li> <li>• Nominal frequency: 1.0MHz.</li> <li>• Work frequency: 1.0MHz+- 10%.</li> <li>• Compatible with Two Probe (for twins).</li> <li>• Complete with all accessories.</li> </ul>	
2	Sonic Aid Machine/Fetus Heart Detector	<ul style="list-style-type: none"> <li>• Fetal Heart Beat/Sound Detection &amp; Rate Monitoring.</li> <li>• Heart rate digitally displayed,</li> <li>• Heart beat audible through the built-in speaker (earphone).</li> <li>• Ultrasonic frequency/output: 2.5MHz, 10mW/cm<sup>2</sup></li> <li>• Audible output : 0.6W (Speaker output: Max.20W)</li> <li>• Heart rate detection range: 50-280bpm</li> <li>• Power requirements:</li> <li>• Ni Cd rechargeable battery 12V with AC recharging unit.</li> </ul>	
3	Gynae Vacuum Suction Apparatus/vacuum extractor with trolley	<ul style="list-style-type: none"> <li>• To be used in fetal vacuum extraction,</li> <li>• neonatal endotracheal amniotic fluid suction,</li> <li>• Surgical suction during operation and uterine aspiration for abortion with super suction curettes.</li> <li>• 2 Suction Bottles, each 3000cc.</li> <li>• Vacuum pressure 750mm Hg adjustable.</li> <li>• Flow capacity: 45lit/min.</li> <li>• Automatic over flow cutoff.</li> <li>• Explosion proof foot switch.</li> <li>• Tray for instruments</li> <li>• Rubber tube 2 meter</li> <li>• Curettes , large, Medium and Small</li> <li>• Mains input supply: 220 volts, 50Hz</li> </ul>	
4	Delivery table/ D&C Table	<ul style="list-style-type: none"> <li>• Couch top made of 3 sections i.e back, hip, leg sections covered with 4" mattress with raxine cover.</li> <li>• Leg section removable</li> <li>• Up/down movement through hydraulic system.</li> <li>• Back seat adjustment through handles.</li> <li>• Removable receptacle under the hip area.</li> <li>• Lithotomy poles with tying strips.</li> <li>• Hand grips on both the sides.</li> <li>• Mobile on castors.</li> </ul>	

### **LIST OF SURGICAL INSTRUMENTS SETS**

**Note: All the instruments must be made of stainless steel. All die made with hidden joints and leak proof. Manufacturers mark must be indicated on all instruments.**

**Selection will be on samples**

<b>S#</b>	<b>Name of the item</b>	<b>Specification</b>	<b>Qty</b>
1.	General Instrument Set	1) Instrument Tray 10x12 01 2) Towel clips 04 3) BP handle No. 4,3 02 4) Artery forceps 6" curved 06 5) Artery forceps 6" straight 02 6) Sponge Holding forceps 02 7) Metzebaum scissors 7.5" curved 01 8) Metzebaum straight scissors 7.5" 01 9) Czerney retractors 02 10) Langenbeck Retractors 02 11) Needleholder 7" 01 12) Toothed dissecting forceps 7" 01 13) Non-toothed dissecting forceps 7" 01 14) Allis' forceps 8" 04 15) kidney tray litter 01 16) kidney tray 500ml 01 Along with Container	
2.	Ear Surgery Instrument Set with Operating Microscope	1. Plaster first incision Knife 01 2. Rotary First incision Knife 01 3. Sickle Knife 01 4. Myringotomes 01 5. Aural Crocodile forceps Tilley's 01 6. Cawthorne Crocodile Scissors Straight 01 7. Cawthorne Crocodile Scissors Right 01 8. Cawthorne Crocodile Scissors Left 01 9. Frazier Suction Nozzles Nos. 6,7,8 03 10. Micro Suction Nozzle 02 11. Cawthorne Hooks. Different Angles 03 12. Granulation Forceps Straight 01 13. Micro Ear Instruments Different 05 14. (Mobilizer, Measuring Rode, Curette, Elevator Rt, Lt Micro Hartmann Crocodile Forceps Straight 01 15. Micro Hartmann Crocodile Forceps Right 01 16. Micro Hartmann Crocodile Forceps Left 01 17. Mollison Mastoid Retractor Adult 02 18. Mollison Mastoid Retractor Child 01 19. Micro Granulation Forceps Straight 01 20. Micro Granulation Forceps Right 01 21. Micro Granulation Forceps Left 01 22. Plaster Jenson Retractor Right 01 23. Plaster Jenson Retractor Left 01 24. Tumarkin Metal Ear Speculum Slotted 04 25. Cawthorne Periosteal Elevator 01 26. King Vein Graft Pressing Forceps 01 27. Instruments Tray 12"x14" 01 28. Needles Box 01 29. Mastoid Chisel 01 Along with Container	
3.	Rhinoplasty Set	1. Alfrights Nasal Retractor 01 2. Nasal Speculum 01 3. Straight S/w Artery forceps 01 4. Scissors Angle don flat 01 5. Ballinger Swivel knife 01 6. Septum nasal forceps right and left Valselum 02 forceps Str. (Ash) 01 7. Metzenbom Scissors Cvdon flat 8" 01 8. Stoz nasal saws right and left 02 9. Padgett nasal rasp fine and heavy 03 10. Joseph nasal Resectory 01	

		11. Joseph skin hooks 03 12. Kilner Alae retractor 02 13. Heath Mallet. 01 14. Set f McIndoe Chisels 5,7,9,11,15mm 01 set Tilley's Nasal Forceps 01 15. McIndoe Non Toothed Forceps 6" 01 16. Mastarde's Toothed Forceps 6" 01 17. Adson Toothed Forceps Fine 01 18. Adson Toothed Forceps Medium 01 19. American pattern suction cannula 01 20. Valkmann curette 01 21. Towel Clips 08 22. Marking pen 01 23. Inkpot 01 Along with Container	
4.	SMR Set	1. Freer Elevator 01 2. Killian Nasal Gouge V-Shape 01 3. Hammer SS 01 4. Frazier Suction Nozzle No 9,10,12 03 5. Tilley's Nasal Dressing Forceps 1. 01 6. Luc Turbinate Forceps Small 01 7. Luc Turbinate Forceps Medium 01 8. Killian Nasal Speculum 2" 01 9. Killian Nasal Speculum 2.5" 01 10. Killian Nasal Speculum 3" 01 11. Hayman's Turbinectomy Scissors 01 12. Tilley's Trocar & Cannula No 7 02 13. Tilley's Trocar & Cannula No 8 02 14. Walsham Septum Forceps 01 15. Telley's Hankle Forceps 01 16. Instruments Tray 01 Along with Container	
5.	Tonsillectomy Set	1. Boyle Davis Mouth Gag Set. (Set of 5 Blades). 01 Set 2. Suspension Rods. 01 Pair 3. Suspension Plate. 1 4. Gwynne Evans Tonsil Dissector. 1 5. Mollison Anterior Pillar Retractor. 1 6. Waugh Tonsil Dissecting Forceps 1X2 Tooth 8". 1 7. Waugh Tonsil Dissecting Forceps Plain 8". 1 Tonsil Artery Forceps Fine Straight. 1 8. Negus Tonsil Artery Forceps Short Curve. 1 9. Negus Tonsil Artery Forceps Long Curve. 1 10. Tonsil Scissors Curved 7.5". 1 11. Tonsil Scissors Fine Point Curved 7". 1 12. Eve's Tonsil Snare. 1 13. Tonsil Snare Wire Packet. (Packet of 15 Pes) 01 Pkt. 14. St. Clair Thomson Adenoid Curette With guard Small. 1 15. St. Clair Thomson Adenoid Curette With guard Large. 1 16. Negus Pusher. 1 17. Denis Brown Tonsil Holding Forceps. 1 18. B.P. Handle No. 7. 1 19. Yankaur Suction Nozzle. 1 20. Instruments Tray 1	
6.	Cataract Surgery Set	1. Wire Speculum. 1 2. St. Clark's Self-Retraining Speculums. 1 3. Arragua's Superior Rectus Needle Holder. 1 Blade Breaker. 1 4. Micro Corneal Forceps with Suture Tying. 1 5. Universal Corneal Scissors. 1 6. Iris Scissors Str/Cvd. 2 7. Micro Corneal Needle Holder. 1 8. Iris Repository Double Ended. 1 9. Wire Vectus. 1 10. Cautey Point. 1 11. Spring Scissors Straight. 1 12. Micro Mosquito Artery Forceps Str/Cvd. 4	

		13. Fixation Forceps. 1 14. Micro Suture Tying Forceps. 1 15. Simeco Two-way Cannula. 1 16. Mcpharson Forceps 1 17. Instruments Tray 8x10" 1 Along with Container	
7.	DCR Instrument Set	1. D.C.R. BonePunch (Karrison). 1 2. D.C.R. Periosteal Elevator Double Ended. 1 3. Mosquito Artery Forceps Straight. 2 4. Mosquito Artery Forceps Curved. 2 5. Bowman Lacrimal Probe No.0-00. 1 6. Bowman Lacrimal Probe No.1-2. 1 7. Bowman Lacrimal Probe No.3-4. 1 8. Wilder Lacrimal Dilator. 1 9. West Lacrimal Sac Chisel. 1 10. Towel Clips. 2 11. Straight Eye Scissors (Iris). 1 12. Stevens Tenotomy Scissors. 1 13. Stevenson Lacrimal Sac Retractor. 1 14. Knapp Lacrimal Sac Retractor. 1 15. Small Mallet. 1 16. Barraquer Needle Holder Curved. 1 17. Straight Dressing Forceps (Iris) Plain. 1 18. Nasal Speculum. 1 19. Nasal Dressing Forceps. 1 20. Suture Barker 1 Along with Container	
8.	Electric Foreign Body Set	Along with Container	
9.	Dissection box for post-mortem with all accessories	<ul style="list-style-type: none"> <li>• Enterotome 2 Pcs</li> <li>• Skull Chisel 2 Pcs</li> <li>• Rib Cutter 2 Pcs</li> <li>• Scalpel 5 Pcs</li> <li>• Scalpel Blades 100 Pcs</li> <li>• Tooth Forceps 5 pcs</li> <li>• Bone Saw 2 Pcs</li> <li>• Amputation knife 2 Pcs</li> <li>• Postmortem Hammer 1 Pcs</li> <li>• Postmortem Chisel 2 pcs</li> <li>• Postmortem Spine Wrench 1 Pcs</li> <li>• Postmortem Hook Knife 1 Pcs</li> <li>• Blowpipe 1 Pcs</li> <li>• Scissor 2 Pcs</li> </ul>	
10.	Glaucoma Set	1. Blade Braker 1 2. B.P Handle No.3 1 3. Wire Speculum 1 4. Mosquito Artery Forceps Str/Cvd 2 5. Corneal Scissors Right. 1 6. Corneal Scissors Left. 1 7. Corneal Scissors Curved of flat. 1 8. Barahuer Needle Holder Curved 1 9. A/I Cannula. 1 10. Along with Container	
11.	Squint Surgical Set	1. Micro Needle holder 1 2. Needle Holder Large 1 3. Conjunctival Scissors 1 4. Corneal Toothed Large 1 5. Artery Forceps 6 6. Bulldog Clamps 2 7. Squint Hook 2 8. V. Calipers. 1	

		9. Bowel SS 4"	1	
		10. Kidney Tray	1	
		11. Along with Container		
12.	AO Basic Set	1. Twist Drills (unmounted 2.5mm diam. 13cm	2	
		2. Twist Drills (unmounted 3.5mm diam 13cm	2	
		Howmann Bone lever small 16 length 6mm wide 2		
		3. Howmann Bone lever cobra type. 16cm	1	
		4. Varburg Bone holding forceps 20cm	2	
		5. Reduction clamp pointed 13cm	2	
		6. Reduction clamp screw jaw with teeth 15cm	2	
		7. Simmons plier 17cm	1	
		8. Tap 2.7mm diam 11cm	1	
		9. Handle for screw driver + countersink	1	
		10. Counter sink 10mm diam 12.5cm	1	
		11. Screw driver 2.5mm 11.5cm	1	
		12. Jefferson periosteal elevator 5mm 20mm	1	
		13. Plate bender 14cm Retorcedor	2	
		14. Screw sleeve 2.5mm + 2.0mm	1	
		15. Screw sleeve 2.7mm + 2.0mm	1	
		16. Tap sleeve 2.5mm + 3.5mm	1	
		17. Venable Screwsleeve 2.0mm	1	
		18. Drill Guide	2	
		19. Bone Scaler	1	
		20. Depth gage Large	1	
		21. Screw clamps 8cm	1	
		22. Screw Driver with Guide 2.5mm 19cm	1	
		Along with Container		
13.	AO Small Fragment Set	1. Bone Holding Forceps A/o small=	2	
		2. Bone Spiker small=	2	
		3. Screw Driver small 2.5mm=	1	
		4. Periosteal Elevator small=	1	
		5. Chisel small=	1	
		6. Bone Cutter small=	1	
		7. Wire Cutter Small=	1	
		8. Tap small 3.5=	1	
		9. Tap Sleeve 3.5=	1	
		10. Depth Gage Small=	1	
		11. Screw Sleeve=	1	
		12. Instruments Box=	1	
		Along with Container		
14.	Dressing Set for Ward	1. Dressing scissors (Plastic Handle)	1	
		2. Stitch Scissors fine	2	
		3. No Toothed Forceps.	1	
		4. Toothed Forceps.	1	
		5. Artery forceps.	1	
		6. Suture forceps.	1	
		7. Small Kidney Tray.	1	
		8. Bowl	1	
		9. Kocher Forceps	1	
		Along with Container		
15.	IMN Set	Awl	1 Each	
		Cortical Awl	1 Each	
		Tissue Protector	1 Each	
		Impactor Large, Medium and Small	1 Each	
		Guide Pin 3.5mm	1 Each	
		Extractor	1 Each	
		Bio-Locking Femur	3	
		10/12/14x360/380/400/420/440/460		
		Femur proximal locking screw	3	
		60/65/70/80/90/100		
		Tibia/femoral blocking screw	3	
		Bio-locking Tibia	3	
		Bio-locking humerus	3	
		Proximal locking screw		
		End Stem		
		Reamer with T-Handle 6mm to 17mm 1 each		
		Along with Container		



16.	Dissecting Instrument Set	Instruments Box Artery Forceps Medium 4 BP Handle 2 Dissecting Forceps plain & tooth 2 Dressing Disecting Scissors (S & M) 2 Dressing suture Cutting Scissors 1 Czerny Retractor 2 Legenback Retractor 2 Needle Holder 2 Along with Container	
17.	Colostomy set	Item Qty Instrument container box10"x12" 1 Towel clips on pin 6 B.P handleNo4 2 Artery forceps 6"curved 8 Artery forceps 6"straight 4 Sponge holding forceps 2 Metzebaumscissors9"curved 1 Sim's straightscissors8" 1 Czerney retractors 2 Langenbaeck retractors 2 Needleholder7" 1 Toothed dissectingforceps7" 1 Non toothed dissectingforceps7" 1 Deaver retractors 2"wideblade 2 Deaver retractors 3"wideblade 1 CBR bougles set` 1 Lathey's forceps 1 Werthemneedleholder9" 1 Allis forceps7" (S,M & L) 6 Yankauer suction canola 1 Kidney tray1litre 1 Deaver retractors 3"wideblade 1 Kidney tray500ml 1 Toothed dissectingforceps9" 1 Non toothed dissectingforceps9" 1 Babcock Forcep (S,M & L) 6	
18.	C-Section set	instrument container box 10"x12" 1 Towel clips on pin 6 Sponge holding forceps 2 non toothed dissecting forceps 7" 2 Toothed dissecting forceps 7" 1 BP handle No 4 Allis's forceps 9" 2 Kidney tray 1 litre 1 Artery forceps 6" curved on pin 8 Artery forceps 6" 4 straight Metzebaum scissors 9" 1 curved Sim's straight scissors 8" 1 Doyne retractors 1 Gallipots 150 ml 1 Wrigley's outlet forceps pair 2 Needle holder 7" 2 Needle holder 9" 1 Baby Cord clamps 2 Green armytage forceps 2 Long Artery forceps 9" straight 1 Long Artery forceps 9" curved 2	
19.	D & C Set	Item Qty Uterine Sound 1 Curette Double Ended 3 Volselum10" 1 Artery Clamp 10" 8 Ovum Forceps. 2 Dialectomy set 1 Sims speculum forceps set of three 1 Curved for Gynae 1 to 5 1	

		Sate catheter (Metallic female catheter) 1 Instrument container box 10"x12" 1 towel clip on pin 4 sponge holding forceps 9.5" 1 non toothed dissecting forceps 8" 2 Allis's forceps 9" 2 Dilator set (Hegers) 1 Galli Pot 150ml 2 Along with Container	
20.	Diagnostic set	The Diagnostic Set includes • Otoscope. 1 • Nasal Speculum, Lamp carrier. 2 • 2 laryngeal mirrors. 2 • Spatula support. 2 • Funnels. 3 • Handle and two spare Bulbs. • Ophthalmoscope 1 • Along with Container	
21.	Dressing Set with Trolley	1. instrument container box 10"x12" 1 2. Towel clips on pin 6 3. Sponge holding forceps 1 4. non toothed dissecting forceps 7" 1 5. Allis's forceps 9" 1 6. Dilator set 1 7. Sims speculum set 1 8. Duck speculum set 1 9. Uterine Sound 1 10. Volselum set 1 11. Uterine curette set of three 12. Kidney tray 1 litre 1 13. Flushing curette set of three 1 14. Gallipots 150 ml 1 15. Along with Container	
22.	E & C Set	1. instrument container box 10"x12" 1 2. Towel clips on pin 4 3. Sponge holding forceps 1 4. non toothed dissecting forceps 7" 6 5. Allis's forceps 9" 2 6. Dilator set 4 7. Sims speculum set 4 8. Duck speculum set 4 9. Uterine Sound 10. Volselum set 4 11. Uterine curette set of three 2 12. Kidney tray 1 liter 1 13. Kidney tray 500ml 1 14. Flushing curette set of three 1 15. Gallipots 150 ml 1 Along with Container	
23.	Laparotomy set	Item Qty 1. Instrument container box 10"x12" 1 2. Towel clips on pin 6 3. B.P handle No 4 2 4. Artery forceps 6" curved 8 5. Artery forceps 6" straight 4 6. Sponge holding forceps 2 7. Metzebaum's scissors 9" curved 1 8. Sim's straight scissors 8" 1 9. Czerney retractors 2 10. Langenbaeck retractors 2 11. Needleholder 7" 1 12. Toothed dissecting forceps 7" 1 13. Non toothed dissecting forceps 7" 1 14. Deaver retractors 2" wide blade 2 15. Deaver retractors 3" wide blade 1	

		16. Kirschnerself-retaining retractor with 4 blades 1 17. Non crushing intestinal clamps curved 2 18. Non crushing clamps straight 2 19. Artery clamps9"curved 1 20. Lathey's forceps 1 21. Debaky Forcep 1 22. Toothed dissectingforceps9" 1 23. Non toothed dissectingforceps9" 1 24. Allisforceps7" 2 25. Yankauer suction cannula 1 26. Kidney tray1litre 1 27. Kidney tray500ml 1 28. Needleholder9 1 29. Daithermy Monopolar 1 30. Self-Retaining Retractor 1	
24.	Normal Delivery set	1. Stainless steel imported/Local made 2. Bowl lotion 150 mm 1 3. Kidney Tray 10" 3 4. Mucus Extractor Reusable Rubber 2 5. Catheter used with mucus Extractor 2 6. Artery Forceps Kocher 8" straight. 4 7. Dissecting Forceps 6" toothed. 4 8. Needle holder mayo 6.5 1 9. Outlet Forceps large size. 2 10. Episiotomy Scissors 6" 2 11. Scissors B/B 6 12. Card Clamp. 1 13. Sims Speculum 1 Along with Container	
25.	Obs/ General Gynae set	1. Instrument container box10"x12" 2. Towel clips on pin 3. Sponge holding forceps 4. non toothed dissecting forceps7" 5. Toothed dissecting forceps7" 6. BP handle No4 7. Allis's forceps8" 8. Kidney tray 1litre 9. Artery forceps 6" curved on pin 10. Artery forceps 6"straight 11. Metzebaum scissors 9" curved 12. Sim's straight scissors 8" 13. Kidney tray 500ml 14. Deaver retractors set of three 15. Gallipots 150ml 16. Bowl 8litre 17. Needle holder7" 18. Needle holder9" 19. Self-retaining retractor (Balfon3blades) 20. Volsellum forceps 21. Long Artery forceps 9"straight 22. Long Artery forceps 9" curved 23. Viginal Retractor	
26.	Thoracotomy set	1. Instrument container box10"x12" 1 2. Towel clips on pin 6 3. B.P handleNo4 2 4. Artery forceps 6"curved 8 5. Artery forceps 6"straight 4 6. Sponge holding forceps 2 7. Metzebaumscissors9"curved 1 8. Sim's straightscissors8" 1 9. Czerney retractors 2 10. Langenbaeck retractors 2 11. Needleholder7" 1 12. Toothed dissectingforceps7" 1 13. Non toothed dissectingforceps7" 1	

		14. Allis forceps7” 1 15. Rib spreader 1 16. Doyenribra spactories set 1 17. Yankauer suction cannula 1 18. Lung retractors 2 19. Kidney tray1litre 1 20. Kidney tray500ml 1 21. Needleholder9” 1 Along with Container	
27.	Thyroidectomy Set	Item Qty Joll’s Retractor 1 Towel clip on pin 6 BP handleNo4 2 Artery forceps 6”curved 8 Artery forceps 6” straight 4 Sponge holding forceps 2 Meta-Baum scissors9”curved 1 Sim’s s straightscissor8” 1 Czemcy retractor 2 Langeback retractor 2 NeedleHolder7” 1 Toothed dissectingforceps7” 1 Non toothed dissectingforceps7” 1 Thyroidre 1 Alliesforceps7” 1 Kidney tray1liter 1 Kidney tray500ml 1 Along with Container	
28.	Urethral Dilator set	Complete Set of Autoclavable Dilators Sizes; 2-32 Along with container	
29	Varicose Vein set	Instrument container box 10”x 12” 1 Towel clips on pin 6 B.P handle No 4 2 Artery forceps 6” curved 8 Artery forceps 6” straight 4 Sponge holding forceps 2 Czerney retractors 2 Langenbaeck retractors 2 Needle holder 7” 1 Toothed dissecting forceps 7” 1 Non toothed dissecting forceps 7” 1 Artery clamps 9” curved 1 Lathey’s forceps 1 Toothed dissecting forceps 9” 1 Non toothed dissecting forceps 9” 1 Allis forceps 7” 1 Along with Container	
30.	Haemorrhoidectomy set	Instrument container box 10”x 12” 1 Towel clips on pin 6 Artery forceps 6” curved 8 Artery forceps 6” straight 4 Sponge holding forceps 2 Metzebaum scissors 9” curved 1 Sim’s straight scissors 8” 1 Needle holder 7” 1 Toothed dissecting forceps 7” 1 Non toothed dissecting forceps 7” 1 Kidney tray 1 litre 1 Along with Container	

31.	Prostatectomy Set	<ul style="list-style-type: none"> <li>Instrument container box 10"x12" 1</li> <li>Towel clips on pin 6</li> <li>B.P handle No4 2</li> <li>Artery forceps 6"curved 8</li> <li>Artery forceps 6" straight 4</li> <li>Sponge holding forceps 2</li> <li>Metzebaum scissors 9"curved 1</li> <li>Sim's straight scissors8" 1</li> <li>Czerney retractors 2</li> <li>Needle holder7" 1</li> <li>Toothed dissecting forceps7" 1</li> <li>Non toothed dissecting forceps7" 1</li> <li>Suprapubic retractor 1</li> <li>Allis forceps7" 1</li> <li>Yankauer suction cannula 1</li> <li>Kidney tray 1litre 1</li> <li>Kidney tray 500ml 1</li> <li>Prostectomy Retractor 1</li> </ul>	
32.	Cholecystectomy Set	<ul style="list-style-type: none"> <li>Instrument container box 10"x12" 1</li> <li>Towel clips on pin 6</li> <li>B.P handle No4 2</li> <li>Artery forceps6"curved 8</li> <li>Artery forceps 6" straight 4</li> <li>Sponge holding forceps 2</li> <li>Metzebaum scissors 9"curved 1</li> <li>Sim's straight scissors8" 1</li> <li>Czerney retractors 2</li> <li>Langenbaeck retractors 2</li> <li>Needle holder7" 1</li> <li>Toothed dissecting forceps7" 1</li> <li>Non toothed dissecting forceps7" 1</li> <li>Deaver retractors 2" wide blade 2</li> <li>Deaver retractors 3" wide blade 2</li> <li>Allis forceps7" 2</li> <li>Yankauer suction cannula 1</li> <li>Kidney tray 1litre 1</li> </ul>	
33.	Vaginal Hysterectomy set	<ol style="list-style-type: none"> <li>Instrument container box10"x12" 1</li> <li>Towel clipsonpin 6</li> <li>B.P handleNo4 2</li> <li>Artery forceps 6"curved 8</li> <li>Artery forceps 6"straight 4</li> <li>Sponge holding forceps 2</li> <li>Metzebaumscissors9"curved 1</li> <li>Sim's straightscissors8" 1</li> <li>Czerney retractors 2</li> <li>Langenbaeck retractors 2</li> <li>Needleholder7" 1</li> <li>Needleholder8" 1</li> <li>Toothed dissectingforceps7" 1</li> <li>Non toothed dissectingforceps7" 1</li> <li>Alliesforceps7" 6</li> <li>Sim's speculum set 1</li> <li>Gallipots150ml 2</li> <li>Uterine sound 1</li> <li>Kidney tray1litre 1</li> <li>Kidney tray500ml 1</li> <li>Volsellum forceps 2</li> <li>Viginal Retractor 1</li> </ol> <p>Along with Container</p>	
34.	Vascular set	<ol style="list-style-type: none"> <li>Instrument container box10"x12" 1</li> <li>Towel clips on pin 6</li> <li>B.P handleNo4 2</li> <li>Artery forceps 6"curved 8</li> </ol>	

		5. Artery forceps 6"straight 4 6. Sponge holding forceps 2 7. Metzebaumscissors9"curved 1 8. Sim's straightscissors8" 1 9. Czerney retractors 2 10. Langenbaeck retractors 2 11. Needleholder7" 1 12. Toothed dissectingforceps7" 1 13. Non toothed dissectingforceps7" 1 14. Allis forceps7" 4 15. Vascular Clamp 2 Along with Container	
35.	Laminectomy Sets	1. Carrison's Rangour (up-cut) 02 - 1mm, 2mm, 3mm,4mm 2. Pituitary Rangour 04 - 1mm, 2mm, 3mm(Strait) - 2mm Forward -01 - 2 mm Backward -01 3. Watson chain Dissector – 01 4. Adson's retractor – root retractor 01 5. Mastoid retractor- 02 6. Deep Mastoid retractor (Cervical) 02 7. Hemi-retractor – (Right 01) (Left 01) 8. Chisel – 01 9. Suction nozzles – small, medium,large 10. BP knife handle – long 01 11. Cutting se: fine / assistant Scissors 02 - Needle holders - Dissecting forceps- Plain and tooth 02 - Artery forceps 04 - Towel clamps sponge holding 01 - Kidney trays 02 - Instruments tray (Large)	
36.	VP Shunt	1. Sulemans subcutaneous shunt passer - Adult Size 4 - Paeds Size 4 2. Hudson Brace –perforator 1 .- Burn bole( Various sizes) 3. Brain Cannula - 1 4. Adson's Dissector 2 5. Mastoid Refractor – Small, Medium, Large sizes 1each 6. Peritoneal trocar 1 7. Cutting set –scissor-fine/assistant 1 - Needle holder- fine large 1 - Artery forceps – all size 4 - Dissecting forceps- plain,tooth 1 each - Sponge holder 1 - Kidney tray - Instrument tray- large size - Bowl(sponge) - Suction- nozzles- medium, small sizes	
37.	Kidney Stone Removal Set	1. Dijorden Forceps 1 2. BoleocksRt angled long dissecting 1 3. Long scissors forceps 1 4. Long needle holders 2 5. Suction nozzles with guard 1 6. Morrison's refractor 1	

38.	Appendectomy Surgery Set	1. Mayo scissor 14cm curved TC 1 2. Scalpel Handle #4 2 3. Allis tissue forceps 15 cm 4 4. Babcock's tissue forceps 16 cm 2 5. Plain Forcep 1 6. Toothed Forcep 1 7. Artery Forcep Curved 4 8. Artery Forcep Straight 2 9. Czerny Retractor 2 10. Needle Holder 2 11. Suture Cutting Scissor 1 12. Kidney Tray 500ml	
39.	Bone Set Large, Small and Medium	1. Complete set of Bone Cutter 1 2. Bone Nibblers 2 3. Chisel - osteotome, 2 4. Hammer – Periosteum 1 5. Elevator, 1 6. Bone levers etc. 4 7. Complete sets curettes 4 8. Bone holding forceps. 4	
40.	Cutting Instrument Set	1. BP needle 2. A. Forceps 3. Allis Forceps 4. Sponge holding 5. Dissecting plain/tooth 6. Towel Clips 7. Needle Holders 8. Kidney Tray 9. Bowels 10. Instruments Tray 11. Dissecting Box 12. Suture Cutting Scissors 13. C-Zamy Refractors Scissors 14. Langback	
41.	Myringoplasty Set	1. Plaster first incision knife 2. Rotary first incision knife 3. Sickle knife 4. Myringotomes 5. Aural crocodile forceps Tilley's 6. Cawthorne crocodile scissors straight 7. Cawthorne crocodile scissors right 8. Cawthorne crocodile scissors left 9. Frazier suction nozzles nos. 6, 7, 8. 10. Micro suction nozzle 11. Cawthorne hook. Different angles 12. Granulation forceps straight 13. Micro ear instruments different (Mobilizer, Measuring rod, Curette, elevator Rt, Lt) 14. Micro Hartmann crocodile forceps straight 15. Micro Hartmann crocodile forceps right 16. Micro Hartmann crocodile forceps left 17. Mollison mastoid retractor adult 18. Mollison mastoid retractor child 19. Micro granulation forceps straight 20. Micro granulation forceps right 21. Micro granulation forceps left 22. Plaster Jensen retractor right 23. Plaster Jensen retractor left 24. Crocodile forceps fine tips 3" 25. Tumarkin metal ear speculum slotted 26. Ear speculums 27. Cawthorne periosteal elevator 28. King vein graft pressing forceps 29. Instruments tray 12" X 14" 30. Needles box 31. Mastoid chisel	

**Category: Generators**

S#	Nomenclature	Specifications	Qty
01	Generator 40 KVA	<p><b><u>Genset Rating:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>• Prime rating: 40KVA/32KW</li> <li>• Output Voltage (Single phase/Three Phase) : 220-240/400-440</li> <li>• Frequency: 50Hz</li> <li>• Power Factor: 0.8</li> <li>• RPM: 1500 or Better</li> <li>• Generator neutral shall be solidly earthed</li> </ul> <p><b><u>Engine Specification:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>• Fuel: Diesel</li> <li>• Engine Rating in HP : 48 HP or better</li> <li>• No of Cylinders: 4 Inline</li> <li>• Compression ratio: 18:1 or better</li> <li>• Displacement: 2.86L or better</li> <li>• Governor Type: Mechanical</li> <li>• Fuel Tank Capacity: 90 L or better</li> <li>• Lubricant Oil Sump Capacity: 7.5L or better</li> <li>• Ambient Temperature at Rated Load: 50°C</li> <li>• Radiator Capacity (L): 13 L or better</li> </ul> <p><b><u>Alternator:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>• Type: 4 poles brushless</li> <li>• Insulation: Class H</li> <li>• Voltage Regulation No Load to Full Load: <math>\pm 1\%</math> or better.</li> <li>• Winding Pitch: 2/3</li> </ul> <p><b><u>Protections:</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Alternator Protection:</u></b> <ol style="list-style-type: none"> <li>1. Overload and Short Circuit Protection.</li> <li>2. Generator Phase Sequence Protection.</li> <li>3. Over/Under Voltage Protection.</li> <li>4. Over/Under Frequency Protection.</li> <li>5. Over current Protection.</li> </ol> </li> <li>• <b><u>Engine Protection:</u></b> <ol style="list-style-type: none"> <li>1. Low Lube oil Pressure</li> <li>2. High/Low Coolant Temperature</li> <li>3. Engine over &amp; under Speed</li> <li>4. Emergency Stop</li> <li>5. Low Fuel Level</li> </ol> </li> </ul> <p><b><u>Display:</u></b></p> <ul style="list-style-type: none"> <li>• Voltage, Current, KW, Power factor, Frequency.</li> <li>• Engine Oil Pressure</li> <li>• Engine RPM</li> <li>• Total Running Hours</li> <li>• Coolant Temperature (Digital)</li> <li>• Fuel level indication</li> </ul> <p>The following items must be included with diesel generator.</p> <ol style="list-style-type: none"> <li>1. ATS panel (Local with imported components).</li> <li>2. Power cable, per meter rate should be mentioned</li> <li>3. Providing, installation and testing of the unit and earthing network for generator set..</li> <li>4. Construction of foundation pad.</li> <li>5. Weather and sound proof canopy (Local).</li> </ol> <p>The supplier will be responsible for complete installation/ functionalization of the generator.</p>	
02	Generator 50 KVA	<p><b><u>Genset Rating:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>• Prime rating: 50KVA/40KW</li> <li>• Output Voltage (Single phase/Three Phase) : 220-240/400-440</li> <li>• Frequency: 50Hz</li> <li>• Power Factor: 0.8</li> <li>• RPM: 1500 or Better</li> </ul> <p><b><u>Engine Specification:</u></b> (Model, Make and country of origin must be mentioned)</p>	



		<ul style="list-style-type: none"> <li>Fuel: Diesel</li> <li>Engine Rating in HP : 60 HP or better</li> <li>No of Cylinders: 4 Inline</li> <li>Compression ratio: 18:1 or better</li> <li>Displacement: 3.3L or better</li> <li>Governor Type: Mechanical</li> <li>Fuel Tank Capacity: 150L or better</li> <li>Lubricant Oil Sump Capacity: 8L or better</li> <li>Ambient Temperature at Rated Load: 50°C</li> <li>Radiator Capacity (Ltr): 15 L or better</li> </ul> <p><b><u>Alternator:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>Type: 4 poles brushless</li> <li>Insulation: Class H</li> <li>Voltage Regulation No Load to Full Load: <math>\pm 1\%</math> or better.</li> <li>Winding Pitch: 2/3</li> </ul> <p><b><u>Protections:</u></b></p> <ul style="list-style-type: none"> <li><b><u>Alternator Protection:</u></b> <ol style="list-style-type: none"> <li>Overload and Short Circuit Protection.</li> <li>Generator Phase Sequence Protection.</li> <li>Over/Under Voltage Protection.</li> <li>Over/Under Frequency Protection.</li> <li>Over current Protection.</li> </ol> </li> <li><b><u>Engine Protection:</u></b> <ol style="list-style-type: none"> <li>Low Lube oil Pressure</li> <li>High/Low Coolant Temperature</li> <li>Engine over &amp; under Speed</li> <li>Emergency Stop</li> <li>Low Fuel Level</li> </ol> </li> </ul> <p><b><u>Display:</u></b></p> <ul style="list-style-type: none"> <li>Voltage, Current, KW, Power factor, Frequency, KWh</li> <li>Engine Oil Pressure</li> <li>Coolant Temperature (Digital)</li> <li>Fuel level indication</li> <li>Engine RPM</li> <li>Total Running Hours</li> </ul> <p>The following items must be included with diesel generator.</p> <ol style="list-style-type: none"> <li>ATS panel (Local with imported components).</li> <li>Power cable, per meter rate should be mentioned</li> <li>Providing, installation and testing of the unit and earthing network for generator set.</li> <li>Construction of foundation pad.</li> <li>Weather and sound proof canopy (Local).</li> </ol> <p>The supplier will be responsible for complete installation/ functionalization of the generator.</p>	
03	Generator 100KVA	<p><b><u>Genset Rating:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>Prime rating: 100KVA/80KW</li> <li>Output Voltage (Single phase/Three Phase) : 220-240/400-440</li> <li>Frequency: 50Hz</li> <li>Power Factor: 0.8</li> <li>RPM: 1500 or Better</li> </ul> <p><b><u>Engine Specification:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>Fuel: Diesel</li> <li>Engine Rating in HP : 115 HP or better</li> <li>No of Cylinders: 4 Inline or better</li> <li>Compression ratio: 18:1 or better</li> <li>Displacement: 4.4L or better</li> <li>Governor Type: Electronic</li> <li>Fuel Tank Capacity: 250L or better</li> <li>Lubricant Oil Sump Capacity: 8L or better</li> <li>Ambient Temperature at Rated Load: 50°C</li> <li>Radiator Capacity (Ltr): 17 L or better</li> </ul>	

		<p><b><u>Alternator:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>• Type: 4 poles brushless</li> <li>• Insulation: Class H</li> <li>• Voltage Regulation No Load to Full Load: <math>\pm 1\%</math> or better.</li> <li>• Winding Pitch: 2/3</li> </ul> <p><b><u>Protections:</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Alternator Protection:</u></b> <ol style="list-style-type: none"> <li>1. Overload and Short Circuit Protection.</li> <li>2. Generator Phase Sequence Protection.</li> <li>3. Over/Under Voltage Protection.</li> <li>4. Over/Under Frequency Protection.</li> <li>5. Over current Protection.</li> </ol> </li> <li>• <b><u>Engine Protection:</u></b> <ol style="list-style-type: none"> <li>1. Low Lube oil Pressure</li> <li>2. High/Low Coolant Temperature</li> <li>3. Engine over &amp; under Speed</li> <li>4. Emergency Stop</li> <li>5. Low Fuel Level</li> </ol> </li> </ul> <p><b><u>Display:</u></b></p> <ul style="list-style-type: none"> <li>• Voltage, Current, KW, Power factor, Frequency.</li> <li>• Engine Oil Pressure</li> <li>• Coolant Temperature (Digital)</li> <li>• Fuel level indication</li> <li>• Engine RPM</li> <li>• Total Running Hours</li> </ul> <p>The following items must be included with diesel generator.</p> <ol style="list-style-type: none"> <li>1. ATS panel (Local with imported components).</li> <li>2. Power cable, per meter rate should be mentioned</li> <li>3. Providing, installation and testing of the unit and earthing network for generator set.</li> <li>4. Construction of foundation pad.</li> <li>5. Weather and sound proof canopy (Local).</li> </ol> <p>The supplier will be responsible for complete installation/ functionalization of the generator.</p>	
04	Generator 200KVA	<p><b><u>Genset Rating:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>• Prime rating: 200KVA/160KW</li> <li>• Output Voltage (Single phase/Three Phase) : 220-240/400-440</li> <li>• Frequency: 50Hz</li> <li>• Power Factor: 0.8</li> <li>• RPM: 1500 or Better</li> </ul> <p><b><u>Engine Specification:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>• Fuel: Diesel</li> <li>• Engine Rating in HP : 240 HP or better</li> <li>• No of Cylinders: 6 Inline or better</li> <li>• Compression ratio: 16.0:1 or better</li> <li>• Displacement: 7.0L or better</li> <li>• Governor Type: Electronic</li> <li>• Fuel Tank Capacity: 280L or better</li> <li>• Lubricant Oil Sump Capacity: 16L or better</li> <li>• Ambient Temperature at Rated Load: 50°C</li> <li>• Radiator Capacity (L): 25 L or better</li> </ul> <p><b><u>Alternator:</u></b> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> <li>• Type: 4 poles brushless</li> <li>• Insulation: Class H</li> <li>• Voltage Regulation No Load to Full Load: <math>\pm 1\%</math> or better.</li> <li>• Winding Pitch: 2/3</li> </ul> <p><b><u>Protections:</u></b></p> <ul style="list-style-type: none"> <li>• <b><u>Alternator Protection:</u></b> <ol style="list-style-type: none"> <li>1. Overload and Short Circuit Protection.</li> <li>2. Generator Phase Sequence Protection.</li> </ol> </li> </ul>	

		<ol style="list-style-type: none"> <li>3. Over/Under Voltage Protection.</li> <li>4. Over/Under Frequency Protection.</li> <li>5. Over current Protection.</li> </ol> <ul style="list-style-type: none"> <li>• <b><u>Engine Protection:</u></b> <ol style="list-style-type: none"> <li>1. Low Lube oil Pressure</li> <li>2. High/Low Coolant Temperature</li> <li>3. Engine over &amp; under Speed</li> <li>4. Emergency Stop</li> <li>5. Low Fuel Level</li> </ol> </li> </ul> <p><b><u>Display:</u></b></p> <ul style="list-style-type: none"> <li>• Voltage, Current, KW, Power factor, Frequency.</li> <li>• Engine Oil Pressure</li> <li>• Coolant Temperature (Digital)</li> <li>• Fuel level indication</li> <li>• Engine RPM</li> <li>• Total Running Hours</li> </ul> <p>The following items must be included with diesel generator.</p> <ol style="list-style-type: none"> <li>1. ATS panel (Local with imported components).</li> <li>2. Power cable, size and per meter rate should be mentioned</li> <li>3. Providing, installation and testing of the unit and earthing network for generator set.</li> <li>4. Construction of foundation pad.</li> <li>5. Weather and sound proof canopy (Local).</li> </ol> <p>The supplier will be responsible for complete installation/ functionalization of the generator.</p>	
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#### **SPECS FOR STD. ROOF HIACE AMBULANCE FABRICATION**

<b>S.No</b>	<b>Nomenclature</b>	<b>Specification</b>	<b>Qty</b>
01	Ambulance	<p><b><u>Ambulance Van:</u></b></p> <ul style="list-style-type: none"> <li>• Engine: Diesel</li> <li>• Engine Type: 4 Cylinder, 8-Valve or better</li> <li>• Piston Displacement: 3000CC or better</li> <li>• Transmission: 5 Speed – Manual</li> <li>• Drive configuration: 4x2</li> <li>• Steering: Right Hand, Power</li> <li>• Brakes: Disc (front wheels), Drum (Rear Wheels)</li> <li>• 04 Doors</li> <li>• Seat Belt (Front)</li> <li>• Air conditioned / Heating system (Front and Rear)</li> <li>• Minimum Turning Radius: 5.0m or less</li> <li>• Fuel Tank Capacity: 65 Liters or better</li> <li>• Audio: AM/FM, 2 Speakers</li> <li>• Clock</li> <li>• Cup Holder: 02 (Front)</li> <li>• Intermittent Wiper</li> <li>• Door Ajar Warning</li> <li>• Key Remind Warning</li> <li>• Steering System: Tilt</li> <li>• Sun Visor: Driver + Passenger</li> </ul>	

#### **AMBULATORY ITEMS**

- Main stretcher – **Auto Loader** / moving type with seat belt and head section (Light Weight Aluminum/Imported, CE Certified)
- Emergency folding stretcher (Canvas cloth/Aluminum/Imported)
- Beacon lamps (4 Feet Emergency LED Strobe Light. Red-Blue Color)
- First Aid Bag
- Electric siren amplifier & speaker
- Side seat for three persons

- Room lamp, 10 W
- Attendant/Doctor seat, folding type, 01 or 02 persons, subject to space
- Fire extinguisher 2 kg & 4 Kg. One is driver cabin and one in patient cabin.
- Hand lamp with connector, 30 W
- Intravenous feeding hook
- Complete oxygen cylinder kit, key and regulator & portable artificial resuscitation equipment. (2 cylinders of 10 Liters capacity each, with Japanese regulators)
- Plywood floor with vinyl covering
- Side cabinet standing & fixed to wall/floor
- Wash basin along with water tank
- Fan (revolving)
- Curtain complete (rear glass)
- Frosted half painted side glasses
- Surgical instrument box with essential surgical instrument/cutting shelf
- Waste bucket
- Ambulance writing with monogram with institution name on all sides and on front in mirror image.
- Connection for power supply (12V-220V)

#### **DETAILED SPECS OF FABRICATION TO BE CARRIED OUT.**

**Note:** Separate rate shall be quoted for the item from S.No 1 to S.No 16 (Including each ambulatory equipment.

##### **1. Floor:**

Floor would not be left punctured for installations. Special molded F/G or MDF flooring base approx. 5mm thick. The floor would be carpeted with, non-slip, stain resistant, water proof and washable special coating vinyl sheet, design includes include special resin, plastic flakes and final coating of transparent lamination **or** imported antibacterial type (one piece) vinyl sheet 2-3 mm thick, as used in 1122 ambulances. This would cover all sides and gaps of the cabinetry making it completely water resistant. Special hard point fittings would be done for installation of chair, cabinet and bench etc. S/S 16 SWG sheet on the floor under the stretcher area.

##### **2. Partition Wall:**

Partition wall between the driver and patient compartment would be fixed with steel brackets to side walls. A small window would be given in between the driver and patient compartment with a built-in place with sliding glass for communication.

##### **3. Ceiling Panel:**

Made of ABS or FG material with internal LED lights, one long grip handle along the length of ceiling made of SS or Aluminum properly reinforced and option for holding two IV hooks with anti-swing belts in ceiling or side panel.

##### **4. Side Utility Panel:**

Made of ABS or FG molded material on the right side. Having dedicated O2 system having two outlets, O2 alarm system, O2 cylinder changeover system and electrical system having all switches and sockets for 12 V & 220 V, having 220 V inverter.

##### **5. Electrical Wiring:**

All electrical wiring of ambulatory compartment would be of wiring harness system with no joint and taping having all connector system and having a separate fuse box for each operation. All wires would be of 10mm, 8 mm and 6 mm size and would be of fire retardant and high temperature resistant, material. There would be a 220 volts imported inverter of 300-400 watts approximately.

##### **6. Three Persons Bench:**

Made of 3" special polyurethane foam as used in automobile seats with approximate 16" width, made over a storage box open-able in one part. Sealed seat cover of best quality artificial leather, seat belts and cushioned back. One side bar made of 1" S.S chromed pipe.

##### **7. Oxygen Supply System:**

Brand new imported oxygen cylinders of approx. 10 liter capacity duly tested, certified and filled by Government approved company, with low oxygen alarm system, changeover system and oxygen supply hose made of resilient, reinforced plastics to retain its flexibility in cold & un-crack able in heat up to 65°C with brass sockets and connectors. The pressure regulator of cylinders would be **Japanese "Panel A"**. Oxygen would be delivered through two outlets on the panel and one outlet over the attendant bench (for additional patient) with flow meters and face masks.

##### **8. One Person Crew Seat:**

One crew seat fixed to the body of the vehicle with waist seat belt, at the head end of patient with best quality artificial leather or fabric.

#### **9. Medical Cabinet:**

Made of high quality non- staining scratch resistant, rust proof, water proof F/G or ABS material. All front doors & drawers having double side finished with self-retaining recessed handles. All doors having closable imported surface hinges. Cabinet having four sections.

##### **a. Oxygen Section:-**

To accommodate two M.F size O2 cylinders, would have double steel brackets with rubber padding. The door having flexi-glass window, an internal light with a door switch. Floor of cabinet matted with vinyl flooring.

##### **b. Disposable Section:-**

Disposable section having 3 to 4 shelves for various disposables.

##### **c. Drawers Section:-**

Having 3 to 5 drawers (depending upon the size of vehicle). All drawers inside made of S/S sheet material or fiber non-magnetic material. All drawers having special self closing&self retaining catcher handle lock system which is not self open-able during emergency driving.

##### **d. Wash Basin Section:-**

This section having special molded wash basin with tap, having a water reservoir of 15 to 20 Liters capacity. Water should be dispensable through an electrical pump operated with a switch. Top of the cabinet having rounded edges & corners. One soap dispenser & one toilet roll holder to be provided.

#### **10. Side Cabinet Shelf for AED, Monitor and Suction unit:**

Made of completely FG material on right side of the vehicle starting from the end of main cabinet and doctor seat to the rear length of right side, one top shelf having capacity to accommodate AED, Monitor, Emergency bag etc. if any.

#### **11. Bleeding Kit Packed in Kidney Tray:**

Bleeding Kit packed in Kidney Tray having following items:-

(02), Toothed Forceps (01), Tourniquets (04), Tissue Scissor (01), Sponge Holder (01), Dressing Scissor (01), Crepe Bandages small & large (02 each), Gauze Packs large (04), Catgut 2/0 (05).

#### **12. Amputation Kit in Stainless Steel Tray:**

Amputation Kit in Stainless Steel (nonmagnetic) Tray having following items:-

Saw Cutter (01), Needle holder (01), Artery Forceps (02). Toothed Forceps (01), Tissue Scissor (01), Sponge Holder (01), Dressing Scissor (01), Crepe Bandages small & large (02 each) Gauze Packs large (04), Silk 2/0 & 1 size 2 each with needle Distilled Water (04), D / Syringes 5cc, 10cc (05 each), Antiseptic wipes 01 box, Quick Clot for immediate stop to perfuse bleeding 01, Hemostatic Gauze one box of 50 Pcs.

#### **13. One Folding Stretcher Four Fold:**

Bedding area made of very strong water resistant PVC coated washable orange parachute cloth with name printed on it and special carrying bag made of Parachute and structure made of 1 ¼ " round light-weight aluminum alloy.

#### **14. Trauma First Aid Bag:**

One rucksack type trauma first aid bag made of strong water resistant PVC coated washable red parachute cloth with reflective strips with appropriate placement for and including the following items:- Wooden splints (2), Crepe Bandage (4"=01 6"=01), N/Saline 0.9% (01), Pyodine Solution (01), Dressing Scissor (01), Cicatrin Powder (01), 4X4 Gauze Pad (04), Sticking 1" (02). Antiseptic wipes 01 box.

#### **15. One Airway Management Bag:**

It should be made of strong water resistant PVC coated washable red parachute cloth with strips printed on it with appropriate placement for and including the following items:-

- Ambo Bag having special valves, which should limit the excessive flow of gas into the patient airway significantly reducing the risk of gastric insufflations by effectively lowering the airway pressure, generated. **(imported ,best Quality)**
- Silicon Laryngeal Mask of 3 variable sizes with transparent tube. (3 pcs total)
- Laryngoscope with three to four curved blades
- One Professional LED torch
- Color coded Airways of assorted sizes (1 set)
- Mouth opener
- Sterilized disposable gloves (04)
- Contaminant bags (04).

#### **16. Ambulatory equipment's**

- One BP apparatus (Mercury type, Japan-Germany) with Littman stethoscope
- One BP Set with Dial (wall mounted) with spiral tubing, cuff, pump and stethoscope.
- Spine Board with Head Immobilizer (Imported)

**A. Transport ventilator with all Accessories.**

**Specifications:**

- Unit to be used for adult, child and infant ventilation during Cardiopulmonary resuscitation and for ventilation during transpiration when necessary.
- To have frequency control 4 to 100 bpm,
- Tidal volume control 20-2000ml
- Inflation pressure monitor 0 to 100 cm H<sub>2</sub>O.
- Air mix control 21 to 100%.
- Adjustable relief pressure with audible alarm 20 to 80 cm H<sub>2</sub>O.
- PEEP facility 0 to 20 cmH<sub>2</sub>O or better.
- Patient circuit 1.25m long, 15mm single bore silicone hose autoclavable.
- With built in compressor/ turbine/ battery Backup.
- Should be compatible with 12-V DC and 220 V ,50 Hz AC
- Test Lung Adult/Peads.
- With turbine, air Compressor (Built-in)

**B. Defibrillator.**

- Semi-automatic maximum 200 joules biphasic defibrillator with monitor and AED mode.
- Synchronized output with ECG.
- Control of energy charging/ delivering on main panel & apex paddle.  
Charging Indicators.
- The energy range should be adjustable for Paeds sand adults up to 200 Joules.
- Charging Time for full energy will be less than 10sec.
- Screen Size of approx.5 inch or better colored.
- Display of HR, ECG through paddles and Lead I,II & III patient cable.
- Built in recorder for printing of full summery on standard paper.
- Alarms for High and low Heart rate, low battery warning.
- AC 220V / 50 Hz operated.
- Built-in Rechargeable battery with charger for at least 50 shocks at max.Energy.
- Auto tester/self-check.
- External pediatric and adults Paddles, ECG cable with reusable electrodes for adult & peads.
- AED facility.
- Should be compatible with 12-V DC and 220 V ,50 Hz AC

**C. Nebulizer :**

- Aerosol with piston Electro compressor.
- Nebulizing rate: 0.35 ml/minute or better
- Compressor Pressure 40 psi or better.
- Compressor air flow: 10lit/min or more.
- Noise Level: 60db or less.
- Granule-metric size of medication: 1-10 microns by means of multi PIPSER Component.
- Should be compatible with 12-V DC and 220 V ,50 Hz AC
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**D. Suction Machine**

- Performance : suction controlled 0-25mmHg
- Controls : On/Off switch
- Safety : positive pressure restricted
- With filter.
- Complete with autoclave able receiver jar 2x3000 ml
- Foot switch: 1 No
- Suction tip: 1 No
- Suction pipe 2m with hose.
- With the over flow safety
- Should be compatible with 12-V DC and 220 V ,50 Hz AC

**Medical Waste Treatment Unit**

S.No	Nomenclature	Specification	Qty
1	Medical Waste Treatment	<p>Fully automatic Medical Waste Treatment System with In Line shredding system to treat high biological risk hospital waste such as Syringes, Blades, Needles, Glass, Bandages, Gauze, Catherates, Blood Bags, Urine Bags, Cannula, Cultures, Placentas etc.</p> <p><b><u>PLC- Microprocessor Controlled Medical waste treatment system</u></b></p> <ul style="list-style-type: none"> <li>Autoclave Capacity:300 Liters per Cycle or better</li> <li>Touch Screen System</li> <li>With In Line Shredding system (i.e Shredder with inbuilt Sterilization system)</li> <li>Having ability to shred medical waste upto 1cm or less.</li> <li>Built-In steam generator</li> <li>Equipped with inbuilt Vacuum pump consists of drying device.</li> <li>Pressure gauge for Chamber &amp; Steam generator.</li> <li>With RS-232 serial port.</li> <li>With two pre-programmed sterilization cycles With high pressure saturated steam; <ul style="list-style-type: none"> <li>a) 134°C at 3 bar 10 minutes or less</li> <li>b) 138°C at 3.5 bar for 20 minutes or less</li> </ul> </li> <li>Unit must be able to perform the following self diagnosing tests; <ul style="list-style-type: none"> <li>a) B &amp; D Test</li> <li>b) Vacuum Leak Test</li> </ul> </li> <li>Medical Waste Treatment Cycle should be consist of; <ul style="list-style-type: none"> <li>a) Conditioning</li> <li>b) Heating</li> <li>c) Sterilization</li> <li>d) Drying</li> <li>e) Aeration</li> </ul> </li> <li>Printer for automatic recording of the parameters and the execution of the cycles, date, time, results of the cycle, operator code, batch number, etc.</li> </ul>	

		<ul style="list-style-type: none"> <li>• Display-Touch Screen for Control and Monitoring of following Processes: <ul style="list-style-type: none"> <li>a) the main menu</li> <li>b) Programmable automatic start up and shut off time</li> <li>c) Door open/closure management</li> <li>d) Selecting cycle and packing type</li> <li>e) the cycle program</li> <li>f) parameters of the cycle</li> <li>g) Self-check display before starting the cycle</li> <li>h) Data related to the load (operator, batch)</li> <li>i) General system conditions for the cycle execution</li> <li>j) Diagram, in real time, of the variables of the sterilization process</li> <li>k) Display status of cycle, temperature, pressure and time</li> <li>l) Process check</li> <li>m) status of the shredding system</li> <li>n) Programmed maintenance</li> <li>o) Maintenance instructions</li> <li>p) Alarms</li> <li>q) Date information</li> <li>r) Status/conditions of the door, temperature, pressure, empty, etc.</li> <li>s) Synoptic.</li> <li>t) F0 Calculation</li> <li>u) Visualization of the last 50 cycles (graphical or value parameters).</li> <li>v) With external USB port.</li> <li>w) Stand by.</li> </ul> </li> <li>• With Protection measures; <ul style="list-style-type: none"> <li>a) Safety Closure for protection from shredder working.</li> <li>b) Main switch with locking device.</li> <li>c) Emergency button on the control panel for immediate shutdown.</li> </ul> </li> <li>• With Safety Systems and alarms; <ul style="list-style-type: none"> <li>a) Signals that occur before, after and during the execution of the cycle, but which do not change the running of the cycle</li> <li>b) Alarm in case of abnormalities (visual and acoustic) which do not effect the execution of the cycle in process.</li> <li>c) Alarm in case of serious abnormalities (visual and acoustic) which effect the execution of the cycle in process.</li> <li>d) Alarms that occur in case of an interruption of the program.</li> </ul> </li> <li>• Sterilization chamber, jacket and door should be made of AISI 316L stainless steel or better</li> <li>• Unit should be equipped with Kit for microbiological testing.</li> <li>• With Sterile Filters; <ul style="list-style-type: none"> <li>a) For the effluent removed from the chamber, contaminated by infective wastes, should pass through a high efficiency filter of 0.2 micron or better that protects the vacuum pump from waste contamination, and should be sterilized by steam before removal.</li> <li>b) Filter of 0.2 micron or better, for the injection of sterile air and for the recovery of atmospheric pressure within the sterilization chamber.</li> <li>c) Unit should be supplied with an extraction fan for further filtration of the air through an active carbon cartridge to reduce the smell of shredded materials.</li> </ul> </li> </ul> <p><b><u>Accessories:</u></b></p> <ul style="list-style-type: none"> <li>a) Water Softener of appropriate Capacity (Model, make and capacity must be mentioned) 1</li> <li>b) Waste Transport Trolley 1</li> <li>c) RO Plant of appropriate Capacity with storage tank (Model,</li> </ul>	
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		make and capacity must be mentioned) 1	
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#### Section V. Technical Specifications

#### **Technical Evaluation Criteria for Machinery & Equipment, Instrument and other Hospital supplies etc.**

**(Maximum Allocable Marks Score = 70 marks)**

***Note: For further details of evaluation criteria and marking scheme please see section on proformas in these SBDs.***

**Technical Evaluation Criteria for the Purchase of  
Category-A Equipment (Section-IV of Statement of Requirement) for the  
financial year 2017-18**

Firm Name: \_\_\_\_\_

Bid Reference No. \_\_\_\_\_

S. No.	Description of Variables	Total points	Remarks
<b><u>A.</u></b>	<b><u>Product Evaluation Parameters</u></b>		
<b><u>1</u></b>	<b><u>Product General Information</u></b>		
1.1	Ref. No of item in SBD Schedule of Requirement		
1.2	Name of equipment		
<b><u>2</u></b>	<b><u>Conformance To Specification</u></b>		
2.1	Fully compliance with the required s specifications as per statement of Requirement (Up to a maximum of four Minor deviations may be accommodated subject to the condition that main function and performance in any aspect would not affect . However, up to four marks will be deducted).	40	
2.2	Additional features of the product ( One mark for each additional feature)	6 (46)	
<b><u>3</u></b>	<b><u>Product International Certification</u></b>		
3.1	Certificate of US Food and Drug Administration (US FDA)	No marks, being mandatory parameter	
3.2	Certificate of European Community MDD (CEMDD)		
3.3	Certificate of Japan Indus trial Standard (JIS)		
3.4	Weightage for local Pakistani original manufacturer	4 (50)	

<b><u>4</u></b>	<b><u>Product Local Performance</u></b>		
4.1	One mark for each satisfactory performance certificate for quoted model or at least the previous provided model of equipment from the public sector medical institution of Pakistan	3 (53)	
4.2	One mark for each satisfactory performance certificate for quoted model or at least the previous provided model of equipment from the teaching level private sector medical institution of Pakistan	3 (56)	
4.3	Warranty Period three years both with spare parts and services & Next two year services without parts, from the date of installation	4 (60)	
	<b>Total score of the Product Evaluation</b>	<b>60 (100)</b>	
<b><u>B</u></b>	<b><u>Firm Evaluation Parameters</u></b>		
<b><u>1</u></b>	<b><u>Personnel/Human Resource</u></b>		
1.1	Simple Technician (6 months/12 months certificate)	2	
1.2	Associate Engineer with Diploma of Associate Engineer	2 (4)	
1.3	Graduate Engineer duly registered with PEC/MSc Electronics with minimum five years experience.	5 (9)	
<b><u>2</u></b>	<b><u>Workshop facility Testing/Calibration of Equipment</u></b>		
2.1	Availability of workshop in Khyber Pakhtunkhwa	5 (14)	
2.2	Availability of workshop at National level	5 (19)	
2.3	List of related tools for the quoted items	5 (24)	
2.4	Detail of Spare parts availability (for the quoted items )	5 (29)	
2.5	Testing tools (for quoted items)	5 (34)	
<b><u>3</u></b>	<b><u>Manufacturer Performance</u></b>		
3.1	Valid ISO 14001 (Environment Certificate)	2 (36)	
3.2	Valid ISO 9001 Quality Management Certificate	2 (38)	
3.3	Valid ISO 13485 Quality Management Certificate for design and manufacture of medical devices.	2 (40)	
	<b>Total Score of the Firm</b>	<b>40 (100)</b>	
<b>A+B</b>	<b>Total Technical Score</b>	<b>60+40 (100)</b>	<b>=</b>

**Technical Evaluation Criteria for the Purchase of**  
**Category-B Equipment for the Financial Year 2017-18**  
**(Maximum Allocable Marks Score = 70 marks)**

**NOTE:**

*For further details of evaluation criteria and marking scheme, please see section on proformas in these SBDs.*

Firm Name: \_\_\_\_\_

Bid Reference No. \_\_\_\_\_

S. No.	Description of Variables	Total points	Remarks
<b><u>A.</u></b>	<b><u>Product Evaluation Parameters</u></b>		
<b><u>1</u></b>	<b><u>Product General Information</u></b>		
1.1	Ref. No of item in SBD Schedule of Requirement		
1.2	Name of equipment		
<b><u>2</u></b>	<b><u>Conformance To Specification</u></b>		
2.1	Fully compliance with the required specifications as per statement of Requirement (Up to a maximum of four Minor deviations may be accommodated subject to the condition that main function and performance in any aspect	30	
2.2	Additional features of the product ( One mark for each additional feature)	4 (34)	
<b><u>3</u></b>	<b><u>Product Certification</u></b>		
3.1	Certificate of US food and Drug Administration (US FDA)	4 (38)	
3.2	Certificate of European community MDD (CEMDD)	4 (42)	
3.3	Certificate of Japan Industrial Standard (JIS)	4 (46)	
3.4	Weightage for local Pakistani original manufacturer	4 (50)	
<b><u>4</u></b>	<b><u>Product Local Performance</u></b>		
4.1	One mark for each satisfactory performance certificate for quoted model or at least the previous provided model of equipment from the public sector medical institution of Pakistan	3 (53)	

4.2	One mark for each satisfactory performance certificate for quoted model or at least the previous provided model of equipment from the teaching level private sector medical institution of Pakistan	3 (56)	
4.3	Warranty Period three years both with spare parts and services & Next two year services without parts, from the date of installation	4 (60)	
	<b>Total score of the Product Evaluation</b>	<b>60 (100)</b>	
<b><u>B</u></b>	<b><u>Firm Evaluation Parameters</u></b>		
<b><u>1</u></b>	<b><u>Personnel/Human Resource</u></b>		
1.1	Simple Technician	2	
1.2	Associate Engineer with Diploma of Associate Engineer	2 (4)	
1.3	Graduate Engineer duly registered with PEC/MSc Electronics with minimum five years experience.	5 (9)	
<b><u>2</u></b>	<b><u>Workshop facility Testing/Calibration of Equipment</u></b>		
2.1	Availability of workshop in Khyber Pakhtunkhwa	5 (14)	
2.2	Availability of workshop at National level	5 (19)	
2.3	List of related tools for the quoted items	5 (24)	
2.4	Detail of Spare parts availability (for the quoted items)	5 (29)	
2.5	Testing tools (for quoted items)	5 (34)	
<b><u>3</u></b>	<b><u>Manufacturer Performance</u></b>		
3.1	Valid ISO 14001 (Environment Certificate)	2 (36)	
3.2	Valid ISO 9001 Quality Management Certificate	2 (38)	
3.3	Valid ISO 13485 Quality Management Certificate for design and manufacture of medical devices.	2 (40)	
	<b>Total Score of the firm.</b>	<b>40 (100)</b>	
<b>A+B</b>	<b>Total Technical Score</b>	<b>60+40 (100)</b>	<b>=</b>

**Technical Evaluation Criteria for the Purchase of  
Category-C & D Items for the Financial Year 2017-18**

Firm Name: \_\_\_\_\_

Bid Reference No. \_\_\_\_\_

S. No.	Description of Variables	Total points	Remarks
<b><u>A.</u></b>	<b><u>Product Evaluation Parameters</u></b>		
<b><u>1</u></b>	<b><u>Product General Information</u></b>		
1.1	Ref. No. of item in SBD Schedule of Requirement		
1.2	Name of equipment		
<b><u>2</u></b>	<b><u>Conformance to the specification subject to the clearance on Sample test</u></b>		
2.1	Total compliance with specification given in statement of Requirement subject to the clearance on sample test by the committee	40	
<b><u>3</u></b>	<b><u>Warranty Period</u></b>		
3.1	One year for instruments and three year for beds & other hospital Supplies with replacement/repair of product (in addition to product standard warranty)	10 (50)	
<b><u>4</u></b>	<b><u>Past Performance for the last five years</u></b>		
4.1	Two marks for each satisfactory performance certificate for quoted item from the public sector hospitals	10 (60)	
4.2	Two marks for each satisfactory performance certificate for quoted items from the private sector teaching medical institution of Pakis tan	10 (70)	
	<b>Total score of the Product Evaluation</b>	<b>70 (100)</b>	
<b><u>B</u></b>	<b><u>Firm / bidder Evaluation Matrix</u></b>		
<b><u>1</u></b>	<b><u>Legal Requirements</u></b>		
1.1	The bidder will have to give valid proof of being manufacturer/importer/authorize dealer	10	
1.2	Last three-year annual income tax return two marks for each year.	6 (16)	
1.3	Last three-year annual sales tax returns two marks for each year.	6 (22)	
1.4	Last three year Annual turn over	3 (25)	
<b><u>2</u></b>	<b><u>Networking facility</u></b>		
2.1	Detail of networking set up / branch office in Khyber Pakhtunkhwa	5 (30)	
	<b>Total Score of the firm</b>	<b>30 (100)</b>	
<b>A+B</b>	<b>Total technical Score</b>	<b>70+30 (100)</b>	<b>=</b>

**Technical Evaluation Criteria for the Purchase of**  
**Category-E Items for the Financial Year 2017-18**

(Maximum Allocable Marks Score = 70 marks)

Firm Name: \_\_\_\_\_

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

S. No.	Description of Variables	Total points	Remarks
<u>A.</u>	<b><u>Product Evaluation Parameters</u></b>		
<u>1</u>	<b><u>Product General Information</u></b>		
1.1	Ref. No of item in SBD Schedule of Requirement		
1.2	Name of equipment		
<u>2</u>	<b><u>Conformance To Specification</u></b>		
2.1	Fully compliance with the required s specifications as per statement of Requirement (Up to a maximum of four Minor deviations may be accommodated subject to the condition that main function and performance in any aspect would not affect. However, up to four marks will be deducted).	30	
2.2	Additional features of the product ( One mark for each additional feature)	4 (34)	
<u>3</u>	<b><u>Requisite Certifications for the Bid</u></b>		
3.1	Authorization Certificate of Manufacturer if the bidder is not a Manufacturer (i.e. Chassis / Superstructure). The manufacturer should meet all the criteria given in these documents.)	No marks, being mandatory parameter	
3.2	Registration with PEC in relevant category & Code (Up to Project Value of 300 Million)		
3.3	Certificate of US-FDA/(CEMDD)/(JIS) for Transport ventilator and Defibrillator (Any two certificates out of three is mandatory).		
3.4	Valid Registration with Sales & Income Tax Authorities		
3.4	Weightage for local Pakistani original manufacturer (OEM certificate from PEC or any other relevant body)	6 (40)	

<b><u>4</u></b>	<b><u>Product Performance index</u></b>		
4.1	Minimum 05 years of successful fabrication. (Satisfactory performance certificate from at least 03 users. (2 marks per certificate)	6 (46)	
4.3	Warranty Period three years both with spare parts and services & Next two year services without parts, from the date of handing/taking over	6 (52)	
	<b>Total score of the Product Evaluation</b>	<b>52 (100)</b>	
<b><u>B</u></b>	<b><u>Firm Evaluation Parameters</u></b>		
<b><u>1</u></b>	Audited Balance Sheets & Income Tax return for last three years (each year 2 marks with Sales above Rs.200.0 million per year)	06	
1.2	Financial Soundness exhibiting last three years bank statement showing capability to execute Contract. (Rs.100 M/PKR or above) (03 marks per certificate)	09 (15)	
1.3	Minimum 03 contracts of fabrication completed. (Min. Rs.200.00 M or above (02 points per contract)	06 (21)	
<b><u>2</u></b>	<b><u>Workshop facility Testing/ Calibration of Equipment</u></b>		
2.1	3S Facility at Peshawar- Khyber Pakhtunkhwa	5 (26)	
2.3	After Sales satisfactory certificate from at least 03 users of same items (Per certificate 2 Nos.)	6 (32)	
2.4	Detail of Spare parts availability (for the quoted items)	5 (37)	
2.5	Mobile After Sales Vans in Peshawar for onsite repair & maintenance of Vehicles & Equipment.	5 (42)	
<b><u>3</u></b>	<b><u>Manufacturer Performance</u></b>		
3.1	Valid ISO 14001 (Environment Certificate)	3 (45)	
3.2	Valid ISO 9001 Quality Management Certificate	3 (48)	
	<b>Total Score of the Firm</b>	<b>48 (100)</b>	
<b>A+B</b>	<b>Total Technical Score</b>	<b>52+48 (100)</b>	<b>=</b>



**Technical Evaluation Criteria for the Purchase of**  
**Category-F Items for the Financial Year 2017-18**

(Maximum Allocable Marks Score=70marks)

***Note:*** For further details of evaluation criteria and marking scheme please see section non proformas in these SBDs.

Firm Name: \_\_\_\_\_

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

S. No.	Description of Variables	Total points	Remarks
<u>A.</u>	<b><u>Product Evaluation Parameters</u></b>		
<b>1</b>	<b>Product General Information</b>		
1.1	Ref. No of item in SBD Schedule of Requirement		
1.2	Name of equipment		
<b><u>2</u></b>	<b><u>Conformance To Specification</u></b>		
2.1	Fully compliance with the required s specifications as per statement of requirement (Up to a maximum of four Minor deviations may be accommodated subject to the condition that main function and performance in any aspect would not affect. However, up to four marks will be deducted).	40	
2.2	Full load test report from manufacturer	6(46)	
<b><u>3</u></b>	<b>Product Certification</b>		
<b><u>3.1</u></b>	Authorization certificate from the manufacturer if the bidders is not a manufacturer	No marks,being mandatory parameter	
<b><u>3.2</u></b>	Service Manuals with circuit diagram for repair and maintenance of Electrical/Mechanical ( Soft & Hard Copy)		
3.1	In case of manufacturer provision of OEM certificate. (OEM means that whole unit must be packaged by the manufacturer of the engine & no third party packaging is allowed.		
3.2	Registration with PEC in Codes ME03 & ME04		

<b>4</b>	<b><u>Product Local Performance</u></b>		
4.1	<b>Down time for response to the fault</b> 02 working days from first communication from PE      10 03 working days from first communication from PE      06 05 working days from first communication from PE      02	10 (56)	
4.2	Comprehensive Warranty of 12 months (irrespective of running hours) with parts and services from date of commissioning.	4(60)	
	<b>Total score of the Product Evaluation</b>	<b>60 (100)</b>	
<b><u>B</u></b>	<b><u>Firm Evaluation Parameters</u></b>		
2.1	Audited Balance Sheets , Income Tax return & Sales tax returns for last three years 03 marks for each year (Rs 100 Million or above)	9	
2.2	Fully Functional workshop at Peshawar	8(17)	
2.3	Fully Functional workshop at national level	6(23)	
2.4	Mobile after sales vans in Peshawar for on sight repair	7(30)	
2.5	Local Training of Technical Staff (02 person)	4(34)	
2.6	Valid ISO 14001 (Environmental Certificate)	3 (37)	
2.7	Valid ISO 9001-2008 Quality management Certificate	3(40)	
	<b>Total Score of the Firm</b>	<b>40 (100)</b>	
<b>A+B</b>	<b>Total Technical Score</b>	<b>60+40 (100)</b>	<b>=</b>

## Section V. Technical Specifications (Continued)

### Financial Evaluation and Scoring System for Bids

(Maximum Allocable Marks Score = 30 marks)

The financial bids of technically qualified bidders will be opened publicly at the time to be announced by the Procuring Agency and the financial bids found technically non-responsive shall be returned un-opened to the respective Bidders.

Total Allocable marks for Technical Proposal = 70

Total Allocable marks in Financial Proposal= 30

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

#### **Scoring Methodology:**

Contract will be awarded to the best evaluated fair and responsive bidder whose product ranks highest in the Combined Evaluation scoring calculated through the Marks awarded to Technical Proposal and Financial Proposal as stated in the Bid Data Sheet of these Standard Bidding Documents.

The Evaluation Methodology is a combination of non-price factors (in Technical Criteria) and price factor (in Financial Criteria); and each having points as elaborated in the evaluation preforms provided in these SBDs.

**Procedure for the Marks Scoring:** Marks will be awarded or otherwise for various technical parameters to each quoted product based on the prescribed Technical and Financial criteria. The total combined marks will determine the highest-ranking product in each product category for contract award.

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

Financial Evaluation Score of individual quoted Product:

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

#### **Solved Example of Financial Scoring:**

- If the lowest quoted price of an item is Rs. 86/-, the same lowest bidder will obtain score as below:
  - =  $[86 \div 86] \times 30$
  - = 30 marks, being the lowest bidder for the quoted item.
- If the next higher quoted price of the same item is Rs. 105/-, the marks obtained will be:
  - =  $[86 \div 105] \times 30 = 24.57$  Marks
- If the next higher quoted price of the same item is Rs. 130/-, the marks obtained will be:
  - =  $[86 \div 130] \times 30 = 19.84$  Marks
- .... And so on.

## Section VI. Sample Forms

### **MANDATORY STANDARD FORMS (1 to 5)**

**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: INTEGRALITY PACTS**

**CONTRACT AGREEMENT** (for information only, shall be signed by the successful  
bidders only)

**BID FORM-1****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 correspondence. Any appeal from bidder/s, for whatsoever reasons, will not be entertained in such a case.

S.No.	Name of the Bidding Firm:	
1.	Please indicate whether the firm is : i. Manufacturer, or ii. Importer, or iii. Both; For various items offered for this bidding competition.	
2.	Please indicate the category/ies under which the Firm is applying for bidding i. Machinery & Equipment ii. Instrument/ other Hospital supplies iii. General items iv. Office equipment v. Bedding & Clothing	
3.	Please provide names, attested copies of CNICs , two recent attested photographs , valid street addresses in Pakistan, all landline and mobile phone numbers of: i. Owner/Proprietor of the Firm; and ii. Managing Director / CEO of the Firm; and iii. Focal person officially made responsible and authorized by the Firm for day-to-day official correspondence with Procurement cell DGHS. iv. (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: I. Complete street address of the: a. Head Office b. Main warehouse; and II. Valid & working official Landline Phone and Fax Numbers; and III. Mobile phone numbers of the Focal Person registered against his /her CNIC No. And name; and IV. Valid and functional Email address; and V. Official Website address /es .	
5.	i. 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 / Pay Order / 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. ii. 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 has been demanded by the Directorate General Office.	

6.	<p>Please provide attested copies of the following Tax related mandatory documents:</p> <ul style="list-style-type: none"> <li>i. National Tax Number (NTN) of the Firm (FTN) for Income Tax, and</li> <li>ii. Last year Income Tax Return of the Firm; and</li> <li>iii. Sales Tax Registration Certificate of the Firm; and</li> <li>iv. Certificate of Professional Tax.</li> </ul>
7.	<p>In case of being manufacturer, the Firm should provide attested copies of the following mandatory documents also:</p> <ul style="list-style-type: none"> <li>i. Duly attested copy of valid Certificate from Chamber of Commerce of the respective country</li> </ul>
8.	<p>In case of being importers, the Firm should provide attested copies of the following mandatory document/s also:</p> <ul style="list-style-type: none"> <li>i. Valid Authorization Certificate for the quoted items, duly attested by the Embassy concerned.</li> </ul>
9.	<p>The bidding Firm should also provide an Affidavit to undertake on Judicial Stamp Paper of the value of at least Rs. 100/- (Rs. One Hundred Only) to the effect that:</p> <ul style="list-style-type: none"> <li>i. They have carefully read the whole set of Standard Bidding Documents for this bidding competition and that they have fully understood and agree to the terms and conditions, evaluation criteria, mechanism of evaluation &amp; selection of items for which the Firm has applied for competition; and</li> <li>ii. They fully understand and agree that the bidding competition for which they 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</li> <li>iii. They guarantee that the quoted items are and will be freely available in the market of Pakistan; and Particularly the market of Khyber Pakhtunkhwa Province; and</li> <li>iv. They shall provide the evaluating teams authorized for the purpose by the Health Department Khyber Pakhtunkhwa; an uninterrupted and free access to all relevant documents, sections of the manufacturing facilities and warehousing facilities as well as any other area relevant to the purpose of such teams in their opinion; and</li> <li>v. In case any documents submitted in relation to this bidding competition or any undertaking given by the Firm, if found incorrect or false or misleading or diverting the decision making for the competition, shall be liable to be proceeded for blacklisting for any business with / by the Government of Khyber Pakhtunkhwa, Health Department, confiscation of bid security and / or any other lawful action as deemed appropriate by the Government of Khyber Pakhtunkhwa.</li> </ul>
10.	<p>I certify and affirm that I have attached all the requisite mandatory documents / information including Bid 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: _____</p> <p>Name: _____</p> <p>CNIC No. _____</p> <p>Designation: _____</p> <p>Address: _____</p> <p>_____</p>

## Bid Form 2

### Letter of Intention

*Bid Ref No.*

*Date of the Opening of Bids*

Name of the Contract: {Add name. e.g. Supply of machinery & equipment, instruments and other hospital supplies, etc.}

To: *[Name and address of Procuring Agency]*

Dear Sir/Madam,

Having examined the bidding documents, including Addenda Nos. *[insert numbers & Date of individual Addendum]*, the receipt of which is hereby acknowledged, we, the undersigned, offer to supply and deliver the Goods under the above-named Contract in full conformity with the said bidding documents and at the rates/unit prices described in the financial bid are not more than a trade price & the prices are not more than the market rates.

We undertake, if our bid is accepted, to deliver the Goods in accordance with terms and condition of contract agreement.

We agree to abide by this bid, for the Bid Validity Period specified in the Bid Data Sheet and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.

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

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

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in Pakistan.

Dated this *[insert: number]* day of *[insert: month]*, *[insert: year]*.

Signed:

In the capacity of *[insert: title or position]*  
Duly authorized to sign this bid for and on behalf of *[insert: name of Bidder]*

### **Bid Form 3**

#### **AFFIDAVIT** (*on Judicial Stamp Paper*)

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

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

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

Signatures with stamp

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

CNIC No. \_\_\_\_\_

For, Messer. [**Name of Supplier**]



**Bid Form-4**

**Note: This form is to be submitted in separate sealed envelope**

**Price Schedule format for Financial Bid of Machinery & Equipment, Instruments  
and other Hospital supplies etc. for the year 2017-18**

**1. In case of Machinery & Equipment.**

S. No	Serial No. of quoted item in Statement of Requirement of these SBDs 2016-17	Name of the item	Number of item	Rate offered per Unit	Total Price of the bid in Pak. Rupees (Rs)

## Bid Form-5

### INTEGRITY PACT (on Judicial Stamp Paper)

**Declaration of Fees, Commission and Brokerage etc Payable by Manufacturers, Importers for the supply of Machinery & Equipment, Ambulance with Ambulatory items, Instrument and other Hospital supplies etc. 2017-18**

In response to advertisement related to the bidding process / competition regarding purchase and supply of machinery and equipment, instrument and other hospital supplies for 2016-17 for the health facilities / institutions through Procurement Cell, DGHS I, Mr. \_\_\_\_\_ s/o \_\_\_\_\_ bearing CNIC No. \_\_\_\_\_, And having the \_\_\_\_\_ Designation of \_\_\_\_\_ In Messrs. (M/S) **[Name of Supplier]** do hereby solemnly Affirm, declare and certify on behalf of M/S **[Name of Supplier]** that:

1. **[Name of Supplier]** 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; and
2. That 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; and
3. That **[Name of Supplier]** 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; and
4. That **[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; and
5. That 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 times 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.

**Signatures with stamp**

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

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

**CNIC No.** \_\_\_\_\_

**Messer:** *[Name of Supplier]*

**Witness No. 1**

**Witness No. 2**

(Signatures, name, father's name, CNIC & address of each Witness)

## RATE CONTRACT AGREEMENT *(for successful bidders)*

THIS RATE CONTRACT AGREEMENT is made and agreed today on \_\_\_\_\_ day of [Month], 2016 between the Government of Khyber Pakhtunkhwa Health Department through Director General Health Services (*hereinafter referred to as the Procuring Agency or the first party, which expression shall, where the context admits, be deemed to include the assignee/s of the provincial Government of Khyber Pakhtunkhwa*) ; and Messrs.[**Name of Supplier**] through Mr. \_\_\_\_\_ Designation \_\_\_\_\_

CNIC No. \_\_\_\_\_, (*hereinafter referred to as the Supplier or the second party or he/his, which expression, unless repugnant to the context, means and includes their legal heir/s, successors-in-interest, assignee/s and legal representative/s*) that:

WHEREAS the Procuring Agency has made a bidding competition for selection and rate contracting for supply of **machinery & equipment, instruments and other hospital supplies** (*hereinafter referred to as goods*) for actual purchases of the selected and rate contracted goods to be made by the offices / officers of the Health Department, Government of Khyber Pakhtunkhwa (*hereinafter called the Purchasing Agency or Purchasing Agencies where the context so admits*); and

WHEREAS the Supplier declares that he is not a broker, middle-man, distributor or authorized dealer but himself a Manufacturer and / or direct Importer of goods for which he has won the bidding competition for supply of goods to the Procuring Agency throughout the province of Khyber Pakhtunkhwa (*hereinafter referred to as the Province*) to the Purchasing Agencies; and WHEREAS both the parties have agreed that the Purchasing Agencies in the Province shall purchase all or some or none of the goods, as of details given in the Schedule-1 of this Contract Agreement, from the Supplier at the sole discretion of the individual Purchasing Agencies; and WHEREAS the Supplier shall supply all the goods ordered by the Purchasing Agency to the latter in the quantity as mentioned in the supply order to be issued by the Purchasing Agency within the timeframe as mentioned in clause 17 of this contract agreement; Now, therefore, both the parties mutually agree to enter into this contract agreement as under:

1. The Supplier agrees to take full responsibility of the validity and implications, that may arise in future, of declaration submitted by him in the form of affidavit on judicial stamp paper along with the financial bids; and also that in case of any kind of breach of the said declaration, the Supplier shall be liable to be proceeded against by the Procuring Agency in accordance with the clauses of this rate contract agreement as well as relevant laws, rules and regulations of the Government of Khyber Pakhtunkhwa, as amended from time to time, to govern the situation/s.

2. The Supplier shall supply the ordered goods to the Purchasing Agency exactly at the address of the official premises situated within the district of the official jurisdiction of the latter as given in the supply order issued to the former.

3. The Supplier shall be solely responsible for transportation, loading and / or unloading and staking of the supplied items till and at the time of delivery to the destination indicated by the Purchasing Agency including any damage or untoward incidence, maintenance of required temperature and protection from light and other environmental conditions as well as other hazards that may possibly or potentially affect the safety, quality and efficacy of the supplied items.

4. The Supplier shall NOT claim or charge transportation, loading / unloading, labor or any other charges related to or in the name of logistics, accidents, insurance, freight, etc.

5. The Procuring Agency shall arrange to obtain sample/s from each supplier before finalization of award with the successful bidder in each category.

6. The Supplier will arrange demo for the physical inspection to the Procuring Agency and shall bear the associated cost.

7. The Supplier will make necessary arrangements including on job training to the end user as well as related engineer before release of final payment or damage liability period is over.

8. The Supplier will provide Service Manual, Circuit diagram and error logbook and operational Manual for the supplied goods.

9. In case of non-supply or delayed supply of items the Supplier shall be proceeded against under the relevant law of the land i.e. Procurement regime and associated country laws.

10. The Purchasing Agency shall recommend to the Procuring Agency for taking legal / lawful action against the Supplier regarding non-supply, short supply, substituted supply, delayed supply or any other unlawful action / shortcoming, on the part of Supplier during the execution of this contract agreement. The Procuring Agency shall take lawful / legal action against the Supplier in accordance with the clauses of this contract agreement as well as relevant laws, rules and regulations of the Government of Khyber Pakhtunkhwa, as amended from time to time, to govern suchlike situation/s, which may include, but not limited to, blacklisting, forfeiture of earnest money and performance guarantee, etc.

11. The Supplier agrees to the following conditions related to packing, packaging and labeling of the goods to be supplied to Purchasing Agencies under this contract agreement:

12. The Procuring Agency or its representative shall have the right to inspect the manufacturing facility, premises, warehouse, godowns, laboratories etc. at any time during the financial year 2015-16 and/or till the execution of supply orders given under this contract agreement by Purchasing Agencies Khyber Pakhtunkhwa.

**13. RATE VALIDITY:**

The Supplier agrees that the approved price of all individual items quoted in the financial bids shall remain valid till and up to 30<sup>th</sup> June 2017.

**14. PERFORMANCE GUARANTEE:**

Upon receipt of supply order from the Purchasing Agency, the Supplier shall submit Performance Guarantee to the former, amounting to ten per cent (10% i.e. 8+2%) of the total value of the each individual supply order, which shall be returned to the Supplier upon request after the successful finalization of the process of procurement by the Purchasing Agencies.

**15. WARRANTY:**

The supplier shall provide warranty on prescribed form to the Purchasing Agency for each item supplied in response to supply orders.

**16. PAYMENT SCHEDULE:**

Bill for payment in triplicate along with all other relevant and required documents shall be submitted by the Supplier, to the Procuring Agency immediately after complete supply of stock. The Supplier shall be bound to pay all sorts of government taxes, duties and stamp duties, imposed earlier or during the financial year by the Government of Pakistan or by the Provincial Government of Khyber Pakhtunkhwa on any supplied / purchased item.

**17. FORCE MAJEURE:**

a. In case of the situation related to Force Majeure, the Supplier may inform the Procuring Agency and the Purchasing Agency in writing about the situation immediately without delay along with solid proof through the fastest, lawful and available means of communication, but not through the electronic mail, and request the Procuring Agency for the grant of extension in the supply period.

b. The Procuring Agency, in case of being fully satisfied with the genuineness of situation arising from Force Majeure for the Supplier, may extend the period of supply of goods up to a maximum of not more than thirty days without penalty. However, the Procuring Agency and / or Purchasing

Agency shall, in no case, be responsible or held responsible for any complications in making payments to Supplier by the Purchasing Agency that may arise from the closure of financial year and lapse / surrender of public funds vis-à-vis the normal financial management procedures in public sector.

**18. PENALTIES:**

A: The Supplier shall complete the supply of the ordered goods under this agreement within the stipulated period as laid down in the SBDs. In case of delay in supplies reaching to the Purchasing Agency, except in situation/s covered under clause 17 above, the following penalties shall be imposed by the Purchasing Agency upon the Supplier:

- i. For delay in supply from one day up to fifteen days, a lump sum penalty amounting to three per cent (03%) of the total bid price of the total number of item/s supplied late shall be levied through deducting the total amount of penalty from the total pre-tax payable billed amount by the Purchasing Agency.
- ii. For delay in supply from sixteen days up to thirty days, a lump sum total penalty amounting to seven per cent (07%) of the total bid price of the total number of item/s supplied late shall be levied through deducting the total amount of penalty from the total pre-tax payable billed amount by the Purchasing Agency.
- iii. Upon delay in supply more than thirty days, the supply contract shall stand cancelled and the ten percent performance guarantee shall stand forfeited and Procuring Agency shall have the right, duty and authority to impose any or all of the below mentioned penalties; that is
  - a. Forfeiting the earnest money and performance guarantee of the Supplier related to this contract agreement; and
  - b. Immediately debarring the Supplier from future participation and business for at least next three (03) calendar years with the Procurement Cell or any other health institution, project and / or Program directly or indirectly run or implemented by or through the provincial Health Department or autonomous Medical Teaching Institutions or district governments in Khyber Pakhtunkhwa; and
  - c. Initiating the process for and recommending for blacklisting of the Supplier with the Agencies; and
  - d. Proceeding for de-registration of the winning bidder under the relevant laws as well as further judicial proceedings, if the situation so warrants in the opinion of Procuring Agency.

B. In case of delay of more than thirty days extended period as in clause 17 above, the contract shall stand cancelled and the performance guarantee of ten per cent shall stand forfeited.

**1819. INDEMNITY:**

- a. Notwithstanding any rights, duties and / or remedial measures and / or managerial actions taken and / or to be taken and / or any powers exercised and / or to be exercised by the Procuring Agency and / or Purchasing Agency and / or Purchasing Officer/s with regard to the execution of this contract agreement, the Supplier agrees to indemnify them for any loss or damage incurred or inflicted upon by them in individual or official capacity upon the Supplier whether through any of their actions and / or practices and / or otherwise.
- b. The Supplier further agrees to pay compensation to the Government of Khyber Pakhtunkhwa of an amount equivalent to ten times the sum of any commission, gratification, bribe or kickback and / or finder's fee given by the Supplier for the purpose of obtaining and / or inducing the procurement of any contract, right, interest, privilege or other obligation/s or benefit in whatsoever form, from the Procuring Agency or any of the Purchasing Agencies.

20. RESOLUTION OF DISPUTES:

a) The Purchasing Agency and the Supplier shall make every effort to resolve amicably by direct negotiation any disagreement or dispute arising between them under or in connection with the contract / supplies.

b) Despite such negotiation if the Purchasing Agency & Supplier have been unable to resolve amicably a contract dispute, either party may refer the case to Secretary Health Khyber Pakhtunkhwa for decision through a Dispute Resolution Committee under the chairmanship of Secretary Health Khyber Pakhtunkhwa with Director General Health Services, Khyber Pakhtunkhwa and Additional Secretary Health (Development) Khyber Pakhtunkhwa as members. The decision of the Dispute Resolution Committee shall be final and binding upon both the parties.

\_\_\_\_\_  
Signature  
Director General Health Services  
Khyber Pakhtunkhwa  
For and on behalf of Government of  
Khyber Pakhtunkhwa,  
Health Department Peshawar

\_\_\_\_\_  
Signature:  
Name:  
Designation  
CNIC No.  
Stamp:  
For and on behalf of the Bidder

WITNESS NO. 1

Signature:  
Name:  
Father's Name:  
Address:  
CNIC No.

WITNESS NO. 2

Signature:  
Name:  
Father's Name:  
Address:  
CNIC No.