

BID SOLICITATION DOCUMENTS (BSD)
Under National Competitive Bidding (NCB)



**SELECTION & RATE CONTRACTING FOR MACHINERY &
EQUIPMENT, INSTRUMENTS & OTHER HOSPITAL
SUPPLIES, ETC. FOR THE YEAR 2021-22.**

Health Department
Government of Khyber Pakhtunkhwa.

PART ONE (UNCHANGEABLE)

- o Instructions to Bidders (ITB)
- o 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) 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 and will result in Framework agreement with the successful bidder.

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 (ITB), and
Section II, General Conditions of Contract (GCC).

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

1. Source of Funds		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 (I) 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 term 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.
2. Eligible Bidders		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.
3. Eligible Goods & Services		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.
4. Cost of Bidding		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.

A. The Bidding Documents

5. Content of Bidding document	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.

6. Clarification of Bidding document	6.1	<p>An interested Bidder requiring any clarification of the 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.</p>
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7. Amendment of Bidding document	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. Preparation of Bids

8. Language of Bid	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.
9. Documents Comprising of Bid	9.1	The bid prepared by the Bidder shall comprise the following Components: 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; d) Bid security furnished in accordance with ITB Clause 15.
10. Bid Form	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, and their country of origin, Quantity, and prices.
11. Bid Prices	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.
12. Bid Currencies	12.1	Prices shall be quoted in Pak Rupees unless otherwise specified in the Bid Data Sheet.
13. Documents Establishing Bidder's	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.
Eligibility and Qualification	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 d) That the Bidder meets the qualification criteria listed in the Bid Data Sheet.</p>
14. Documents Establishing Goods' Eligibility and Bidding Documents	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> <p>a) A detailed description of the essential technical and performance characteristics of the goods;</p> <p>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</p>
		<p>the use of the goods by the Procuring agency;</p> <p>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.</p>
	14.4	<p>For purposes of the commentary to be furnished pursuant to ITB Clause 14.3(c) above, the Bidder shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Procuring agency in its Technical Specifications, are intended to be descriptive Only and not restrictive. The Bidder may substitute alternative standards, brand names, and/or catalogue numbers in its bid, provided that it demonstrates to the Procuring agency's satisfaction.</p>
15. Bid Security	15.1	<p>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.</p>
	15.2	<p>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.</p>
	15.3	<p>The bid security shall be in Pak. Rupees and shall be in one of the following forms:</p> <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 and valid for thirty (30) days beyond the validity of the bid; or</p> <p>b) Irrevocable en-cashable on-demand Bank call-deposit.</p>
	15.4	<p>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.</p>
	15.5	<p>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.</p>
	15.6	<p>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.</p>

	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.
16. Period of Validity of Bids	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.
17. Format and Signing of Bid	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.

C. Submission of Bids

18. Sealing and Marking of Bids	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: a). Be addressed to the Procuring agency at the address given in the Bid Data Sheet; and 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.
	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.
19. Deadline for Submission of Bids	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.
	19.2	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.
	19.3	In order to avoid the delays, the Procuring agency will hold a prebid 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.
20. Late Bids	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.
21. Modification And Withdrawal Of Bids	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.
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D. Opening and Evaluation of Bids

22. Opening of Bids by the Procuring Agency	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 rejected a 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.
23. Clarification of Bids	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.
24. Preliminary Examination	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 may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail.
	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.
	25. Evaluation and Comparison of Bids	
	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 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	<p>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:</p> <p>a. Incidental costs provided by the bidder will be added by Procuring agency to the delivered duty paid (DDP) price at the final destination.</p> <p>B. Delivery schedule.</p> <p>1. The Procuring agency requires that the goods under the Invitation for Bids shall be delivered at the time Specified in the</p>	
		<p>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</p> <p>OR</p> <p>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</p> <p>III. The goods covered under this invitation are required to be delivered in partial shipments, as specified in the Schedule of Requirements. Bids offering deliveries earlier or later than the specified deliveries will be adjusted in the evaluation by adding to the bid price a factor equal to a percentage, specified in the Bid Data Sheet, of DDP price per week of variation from the specified delivery schedule.</p> <p>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>	
Alternative	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.	
26. Contacting the Procuring Agency	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.	

E. Award of Contract

27. Post-qualification	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.	
28. Award Criteria	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.	
29. Procuring agency's Right to Vary Quantities at Time of Award	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.	

30. Procuring agency's Right to Accept any Bid and to Reject any or All Bids	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.
31. Notification of Award	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.
32. Signing of Contract	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.
33 Performance Security	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.

34. Corrupt or Fraudulent Practices	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 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.
35. Integrity Pact	35.1	The Bidder shall sign and stamp the Integrity Pact provided at Form - 7 to Bid in the Bidding Document for all Provincial Government procurement contracts exceeding Rupees ten million. Failure to such Integrity Pact shall make the bidder non - responsive.

Part One - Section II.

General Conditions of Contract

Notes on the General Conditions of Contract (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

1. Definitions	1.1	<p>In this Contract, the following terms shall be interpreted d as indicated: a——The Contractll 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.</p> <p>b.—The Contract Price means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.</p> <p>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.</p> <p>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.</p> <p>e.GCC means the General Conditions of Contract contained in this section.</p> <p>f.SCC means the Special Conditions of Contract.</p> <p>g.The Procuring agency means the organization purchasing the Goods, as named in SCC.</p> <p>h. The Procuring agency’s country is the country named in SCC.</p> <p>i.The Supplier means the individual or firm supplying the Goods and Services under this Contract.</p> <p>j.The Project Site, where applicable, means the place or places named in SCC.</p> <p>k.Day means calendar day.</p>
2. Application	2.1	These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.
3. Country of Origin	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.
4. Standards		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.

5. Use of Contract Documents and Information; Inspection and Audit by the Government	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.
6. Patent Rights	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.
7. Performance Security	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: 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 b. A cashier's check or certified check.
	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.

8. Inspections and Tests	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.
9. Packing	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.
10. Delivery and Documents	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.

11. Insurance	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.
12. Transportation	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.
13. Incidental Services	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"> a. Performance or supervision of on-site assembly and/or start-up of the supplied Goods; b. Furnishing of tools required for assembly and / or maintenance of the supplied Goods; c. Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods; 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
		<p>warranty obligations under this Contract; and</p> <ul style="list-style-type: none"> 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.
	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.
14. Spare Parts	14.1	<p>As specified in SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:</p> <ul style="list-style-type: none"> 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 b. In the event of termination of production of the spare parts: <ul style="list-style-type: none"> i. Advance notification to the Procuring agency of the pending termination, in sufficient time to permit the Procuring agency to procure needed requirements; ii. Following such termination, furnishing at no cost to the Procuring agency, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty	15.1	<p>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</p> <p>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.</p>
	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.
16. Payment	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.
17. Prices	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.

	18.1	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: a. Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Procuring agency; b. The method of shipment or packing; c. The place of delivery; and/or d. The Services to be provided by the Supplier.
	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.
18. Change Orders		
19. Contract Amendments	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
20. Assignment	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.
21. Subcontracts	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.
22. Delays in the Supplier's Performance	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.
23. Liquidated Damages	23.1	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.
24. Termination for Default	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. 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 be 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.
25. Force Majeure	25.1	Notwithstanding the provisions of GCC Clauses 22, 23, and 24, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under

	25.2	For purposes of this clause, —Force Majeure ¹ 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.
	25.3	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.
26. Termination for Insolvency	26.1	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.
27. Termination For Convenience	27.1	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.
	27.2	The Goods that are complete and ready for shipment within thirty (30) days after the Supplier's receipt of notice of termination shall be accepted by the Procuring agency at the Contract terms and prices. For the remaining Goods, the Procuring agency may elect: to have any portion completed and delivered at the Contract terms and prices; and/or 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.
28. Resolution of Disputes	28.1	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.
	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.

29. Governing Language	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.
30. Applicable Law	30.1	The Contract shall be interpreted in accordance with the laws of the Procuring agency's country, unless otherwise specified in SCC.
31. Notices	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.
32. Taxes and Duties	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.

Standard Bidding Documents

Under National Competitive Bidding



SELECTION & RATE CONTRACTING FOR MACHINERY & EQUIPMENT,
INSTRUMENTS& OTHER HOSPITAL SUPPLIES ETC FOR THE YEAR 2021-22.

Health Department
Government of Khyber Pakhtunkhwa

PART TWO (PROCUREMENT SPECIFIC PROVISIONS)

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

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) , www.dghskp.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. SELECTION & RATE CONTRACTING FOR MACHINERY & EQUIPMENT, INSTRUMENTS, GENERATORS & OTHER HOSPITAL SUPPLIES, ETC FOR F.Y 2021-22.

1. Directorate General Health Services, Khyber Pakhtunkhwa Peshawar invites sealed bids under National Competitive Bidding from Manufacturers and/ or Importers and/ or authorized agents of Machinery, Equipment, Instruments, and other Hospital supplies etc. to Select & Rate Contract the same for framework agreement for various Purchasing Entities of Health Department, Government of Khyber Pakhtunkhwa for F.Y. 2021-22.
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 Technical and Financial Bid separately clearly marked in bold & legible letters. The firms are expected to provide complete information of the bid along with its postal as well as valid email address and phone number/s on each respective envelope.
3. Interested Manufacturers and/ or Importers and/ or authorized agents must obtain Application Form along with complete set of bidding documents from the Procurement Cell at the Directorate General Health Services, Old FATA Secretariat Warsak Road Peshawar during office hours on any working day till **Monday, July 05, 2021**, against the non-refundable cash payment of Pak Rupees Two thousand per application form. The Bidding Documents may be downloaded from the following official websites: www.healthkp.gov.pk, www.dghskp.gov.pk and www.kppra.gov.pk.
4. The bidders are required to submit their inputs/reservations on Bidding Documents including Specifications, Criteria etc. to Procurement Cell in writing before 11th June 2021, as category wise pre-bid meetings with the interested bidders will be held on 14th June 2021 for category-A equipment's, 15th June 2021 for category-B equipment's and 16th June 2021 respectively for rest of the categories, in this Directorate starting at 10.00 AM sharp.
5. Interested Bidders must submit sealed bids to the Procurement Cell at the Directorate General Health Services, Warsak road Peshawar on or before 10:30 AM sharp, **Monday, July 05, 2021**, which will be opened on the same day at 11:00 AM in the presence of those bidders or their representatives, who choose to attend the process. Bid submitted after 10:30 AM shall not be entertained.
6. Financial bid must be accompanied with irrevocable Bid Security in the name of the undersigned which shall be from bank account of the prospective bidder. Ordinary cheque and Payment Order (PO) in the form of bid security shall result in disqualification of bidder as per KPPRA Act and Rules.
7. Technical bids must be accompanied with a photocopy of the bid security (not showing the amount) and an Affidavit on Judicial Stamp paper to the effect that bid security as per Bid data Sheet is attached in the financial bid, failing which the technical bid will be considered as non-responsive.
8. Bids must be computer typed & printed; and the offered bid prices must be written both in words & figures. Bid prices/ quotations with cutting and over-writing shall not be accepted to the extent of that particular quoted item. An authorized person of the bidder/firm shall sign & stamp all pages of the bid having numbers on each page. Firms shall submit bids in hard binding, and bids submitted in box file/ loose file will be considered non-responsive.
9. The technical proposal shall contain all the details in accordance with standard specification of the items/goods mentioned in the Schedule of Requirements (SOR) which must be supported by catalogue/Brochures. Bids will be submitted on the format mentioned in BSD. All bidders are also required to submit the relevant detail of technical proposal and required documents in soft copies on Computer USB and official email of procurement Cell in PDF format, duly labeled by a permanent marker with the name of bidder/ firm.
10. Bidders are required to offer the most competitive 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 Rules 2014.

Director General Health Services
Khyber Pakhtunkhwa, Peshawar
Tel No: 091- 9210269/091-7250736
Fax No: 091- 9210230
Email: pcdghs@gmail.com

Section II. Bid Data Sheet

BID DATA SHEET

ITB Re f.	Introduction/Description	Detail
ITB 1.1	Name of Procuring Agency of Government Of Khyber Pakhtunkhwa.	DGHS- KP Peshawar Health Department Government of Khyber Pakhtunkhwa
ITB 1.1	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 2021-22
ITB 1.1	Name of Project	Selection & Rate Contracting under Khyber Pakhtunkhwa District Govt. Rules of Business 2015 through Framework agreement under KPPRA regime
ITB 1.1	Name of Contract	Selection & Rate Contracting through framework agreement for F.Y 2021-22.
ITB 4.1	Name of Procuring agency.	DGHS-KP Peshawar Health Department Government of Khyber Pakhtunkhwa
ITB 6.1	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
ITB 8.1	Language of the bid.	English
Bid Price and Currency		
ITB 11.2	Price quoted shall be:	Pakistan Rupees (Rs.)
ITB 11.5	The price shall be fixed	The quoted prices will be valid till 30th June 2022.
Preparation and Submission of Bids		
ITB 13.3 (d)	Qualification requirements.	1) Manufacturer/Importer/ Sole agent of manufacture category A, B, F& G specified in SOR. 2) Manufacturer/Importer for category- C specified in SOR. 3) Manufacturer/Importer/Authorized dealer for category D & E specified in SOR.
10	Spare parts required for period of years of Operation	1) Three Years free of cost provision of services and spare parts under warranty period. 2) Two Years free of cost service without spare parts. 3) Ten Years parts availability in market and will provide certificate for the same.

ITB 15.1	Amount of bid security.	<p>Bid security shall be @ 2% of bid value for Category A, B & F.</p> <p>Whereas Rs. 300000 (Three Hundred Thousand only) for each individual Category of C/D, E& G. The Bid security shall be from bank account of the bidder. Ordinary cheque and Payment Order (PO) in the form of bid security will result in bid rejection summarily.</p>
ITB 16.1	Bid validity period.	120 days from the date of opening of bids
ITB 17.1	Number of copies.	One (original bid)
ITB 18.2 (a)	Address for bid submission.	Procurement Cell Directorate General Health Services, Ex-FATA Secretariat Warsak Road , Peshawar
ITB 18.2 (b)	IFB title and number.	SELECTION & RATE CONTRACTING FOR MACHINERY & EQUIPMENT, INSTRUMENTS & OTHER HOSPITAL SUPPLIES, ETC FOR THE YEAR 2021-22.
ITB 19.1	Deadline for bid submission.	10:30 AM Sharp. <u>Monday, July 05, 2021</u>
ITB 19.3	Pre-Bid meeting with the bidders	<p>The bidders are required to submit their inputs/reservations on Bidding Documents including Technical Specifications, Criteria etc. to Procurement Cell in writing on or before 11th June 2021 or during pre-bid meetings.</p> <p><u>A Category wise pre-bid meetings with the interested bidders will be held on</u></p> <p>1). 14th June 2021 for category-A equipment's, 2). 15th June 2021 for category-B equipment's and 3). 16th June 2021 respectively for rest of the categories, in this Directorate starting at 10.00 AM sharp.</p>
ITB 22.1	Time, Date, and Place for bid opening.	11:00 AM Sharp. <u>Monday, July 05, 2021 Directorate General Health Services KP , WarsakRoad, Peshawar.</u>
Bid Evaluation		

ITB 23.1	Clarification of Bids	The Procuring agency may ask the Bidder in writing, only for clarification regarding the received documents in the bid; however no change in the prices or substance of the bid shall be sought, offered, permitted or entertained. This communication shall be with the prior approval of chairman T&E committee.
ITB 25.3	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.
ITB 25.4 (a) ITB 25.4 (b)	One option only Delivery schedule. Relevant parameters in accordance with Option selected.	Not Applicable
Option I Option II Option III	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
ITB 25.4 (c)(ii)	Deviation in payment schedule. Annual interest rate.	Not Applicable
ITB 25.4 (d)	Cost of spare parts.	Not Applicable
ITB 25.4 (e)	Spare parts and after sales service facilities in the Procuring agency's Country.	Not Applicable
ITB 25.4 (f)	Operating and maintenance costs.	Not Applicable
ITB 25.4 (g)	Performance and productivity of Equipment.	Not Applicable
ITB 25.4 (h)	Details on the evaluation method or reference to the Technical Specifications	As in section on Technical Evaluation of bids.
ITB 25.4 alternative	Specify the evaluation factors.	Not Applicable
ITB 28.1	Award Criteria	Section 2 (c)(i)
Contract Award		
ITB 29.1	Percentage for quantity increase or Decrease.	Number of items can be increased and Decreased as per requirement of the PE within permissible limits under the rules.

Section III. Special Conditions of Contract

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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:** Directorate General Health Services, Health Department, Government of Khyber Pakhtunkhwa, Peshawar; and

The Purchasing Agency/is /are: District Health Officers, Medical Superintendents, and other Heads of the Primary & Secondary care of the Health Department, Government of Khyber Pakhtunkhwa.

GCC 1.1 (i) The Supplier is: i) Manufacturer and/or Importer and or sole agent of manufacturer 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.

2. Sample Provision:

GCC 1.1 (j)—The Project Site is: 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 Procurement Cell, DGHS or any other place notified by the procurement Cell, at bidder's own risk and cost at the time and date communicated. The samples will be returnable and no payment shall be made to bidder / Focal Person on this account. Notified technical committee for sample shall evaluate the samples provided.

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. The bidder will provide the details regarding country of origin, Model, Make, manufacturer, along with details of Manufacturing Units and mode of supply, shipment, and any other associated details of the component items and that of the quoted equipment. Bidders are bound to supply the equipment from quoted country of origin only.

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. of the total value of each individual supply order placed to the successful bidder.

However, the Standard bid security @ 2 percent of the bid value for all category A,B& F and Rs.300000 (Three Hundred Thousand only) for each of the Categories C, D,E & G, 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 Procurement Cell as Bid Security and will be released back to successful bidders after receipt of 10% performance security on each individual supply order placed by the respective procuring entity and will be retained by procuring entity till completion of warranty period.

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. Technical Evaluation shall be conducted by the Technical and Evaluation (T&E) Committee or scrutiny Committee to undertake verification of documents submitted by the bidder/s along with the technical bids as well as to conduct the physical inspection of the various samples &/or relevant premises as per rent agreement or ownership etc. (Section-V -Technical Specification of the Part II of these SBDs)
- ii. Machinery & Equipment and other items supplied for sample tests shall be examined and tested by a panel of experts of the T&E Committee of the Government 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. The Procuring Agency reserves the rights to reject the quoted items/equipment at any stage before award of contract in case of any deviation from the standard specifications.

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 nonnegotiable 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;
- i. Inspection certificate, issued by the nominated inspection agency, and the Supplier's factory inspection report.
- ii. Certificate of origin; and Custom clearing documents.

10. Payment (GCC Clause 16):

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

11. Prices (GCC Clause 17)

- i. The bidder will 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 than 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 may carry out the market analysis before issuing a letter of consent to the successful bidder.

13. Liquidated Damages (GCC Clause 23)

As in relevant clauses of the Rate Contract Agreement signed by the Supplier with the Procuring Agency. Penalties shall be imposed as per contract agreement and blacklisting & debarment guidelines of the department if the firm deviates from Rate Contract Agreement.

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 under KPPRA Regime.

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).if technical and financial score are the same, the contract may be awarded to both firms.

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, KPPRA Rules 2014 and prevailing regulations etc.
- ii. The Contract Act 1872.
- iii. 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.
- iv. The Bonded Labor System (Abolition) Act of 1992.
- v. The Factories Act 1934.
- vi. Company Act 2017.

18. Notices (GCC Clause 31)

GCC 31.1—Procuring Agency address for notice purposes: Procurement Cell, Directorate General HealthServices, Khyber Pakhtunkhwa, Khyber Road, Peshawar.

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

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

19. Duties & Taxes (GCC clause 32)

The Unit price quoted by the bidder shall be: **inclusive** of all applicable duties and taxes. All prices shall include relevant taxes & duties, where applicable. The benefit of exemption from or reduction in the GST or other taxes shall be passed on to the Purchasing 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. Bidders shall establish all legal documentary proofs where required/ ask by the procurement cell.

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 embassy attested 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. In case of imported products, the authorization shall be attested from the embassy of Pakistan in the country of manufacturing or embassy of the manufacturing country in Pakistan. Bidders shall provide letter of authorization from foreign/local Manufacturers whose shall not be in the process of winding up/liquidations.

23. Technical Staff and Tools

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

24. Minor Deviation

The Procuring Agency may waive off any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation (or changes the substance of the bid), provided such waiver does not prejudice or affect the relative ranking of any Bidder. Any item other than quoted and approved shall not be supplied to procuring entity without intimation to procurement cell and Supply shall be subject to clearance from S&RCC on recommendation of technical experts of procurement Cell notified by chairman T&E.

25. Deviation from critical Provision

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

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. Alternate Bid

Different models/ prices offered for a single item by the same bidder shall be considered as alternate bid and Shall be non-responsive.

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. The available testing equipment must be calibrated. The successful bidders shall provide complete technical manual and operation manual to the in charge of central workshop Peshawar all regional workshops.

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 services, documents mentioned in technical bids and any other relevant details regarding testing tools, calibration tools, spare parts etc by relevant technical personnel.

32. Opening of the Financial Proposals

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

34. 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.

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

37. List of Related tools/parts: The details regarding testing, calibration tools shall be submitted in bid which will be verified during inspection. The list is attached in this document and marks will be awarded after verification & recommendation by relevant technical personnel during inspection stages.

38. Technical Bid Submission Vis-à-vis Format.

The bidders will quote the technical bids on the format/ Form given in the sample form.

Technical Bid Quotation Form / Vis-à-vis

Name of Equipment / Item:	
Model:	
Make:	
Country of Origin:	
Category of equipment / item:	
S. No in SBDs:	
Comparative of Required Specification and Quoted Specification	
Required Specification (Procurement Cell DGHS)	Quoted Specification of the bidder

Section IV. Schedule of Requirements

Instructions relating to Category A, B, C, D, E, F, G & H equipment / items:

- As detailed elsewhere in this document, 2 % of bid security of the total bid value of equipment / items for category (A, B, & F) and Rs: 300,000 (Three Hundred Thousand) for each category of C,D,E &G shall be submitted by each bidder on the total quantity of items for which bid is being submitted. 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.
- All the bidders must submit the quotations for category A and B equipment / items on the below format / form.
- Registration with Drug Regularity Authority of Pakistan (DRAP) as manufacturer of Medical Devices for local manufacturer of equipment / items.
- In case of imported items of category A, B and C the quoted items shall be registered for use in their country of origin, for which the Importers should provide valid authorization 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 or where the commercial office located for the quoted items. Non-provision of valid embassy attested authorization for imports will lead to disqualification of firm in Category A, B and C.
- All certifications (i.e Manufacturer authorization, ISOs, CE MDD, USFDA, JIS/MLHW, and DRAP) and data/ documents shall be valid. Committee may carry out the verifications on or before award of contract and in case of any fraudulent practice; legal action will be taken against the bidder concerned. Any certificate expires before bid opening will not be entertained.
- Non-Provision of mandatory documents mention in these SBDs shall lead to disqualification of the firm / quoted items.
- The bidder is bound to provide local training for at least 5 persons including the technical persons of Procurement Cell & Workshops Persons.
- After sale satisfactory performance certificate must be recognized from relevant forums having dispatch number, signature of the officer and date on letter head of procuring entity. The satisfactory performance certificate of non-recognized institution with relevant forums will not be considered.
- The bidding is carried out for Rate Contract through Framework Agreement and hence the quantity is not mentioned. The order may increase / decrease as per requirement / decision of the purchasing 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 Procuring Entity has the right to inspect o (if needed) the premises of bidder to inspect the setups ensuring proper after sales services, verify documents (if needed) mentioned in technical bids and any other relevant details. Premises (office/workshop) of bidder shall be insured through ownership/or Rent agreement.
- The bidder shall provide the shipment trail of the quoted item from the manufacturing site till destination.

- The Bid security shall be from bank account of the bidder. Ordinary cheque and Payment Order (PO) in the form of bid security shall result in bid rejection.
- The Unit price quoted by the bidder shall be **inclusive** of all applicable duties and taxes. All prices shall include relevant taxes & duties, where applicable. The benefit of exemption from or reduction in the GST or other taxes shall be passed on to the Procuring Agency.
- Different models/ prices offered for a single item by the same bidder shall be considered as alternate bid and shall be non-responsive.
- Any reservations on BSD including criteria, specifications etc (if any) shall be submitted in writing in the Pre-bid meeting by authorized person/representative of the firm during the period of Pre Bid.
- **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.

List of Equipment/Items

S.No	Name of equipment	Category
1	Air Purification System	A
2	Anesthesia Machine with Cardiac Monitor having two vaporizers	A
3	Argon Laser	A
4	Auto Refractor with Keratometer	A
5	B. Scan	A
6	Bronchoscope Flexible full set with all accessories	A
7	Bronchoscope Rigid	A
8	Cardiac Monitor for Category C & low level Hospitals	A
9	Cardiac Monitor for Higher level Hospital	A
10	Cardiac Monitor with Defibrillator	A
11	High End Color Doppler Machine	A
12	Color Doppler Machine	A
13	CR System (computerized radiography system) with compatible UPS	A
14	Cystoscope flexible set with light source complete	A
15	Dialysis Machine	A
16	Digital Fluoroscopy Unit	A
17	Digital OPG X Ray	A
18	DR system for existing X-ray machines with compatible UPS	A
19	High End Echo Machine	A
20	Echo Machine	A
21	Elisa Machine (Reader, incubator shaker and Washer) Programmable with UPS	A
22	Endoscope Gastro duodenal	A
23	Esophagoscopes instruments set	A
24	ETT Machine	A
25	Fully Automated Chemistry Analyzer with UPS	A
26	Grey Scale Portable / Mobile Ultrasound Machine	A
27	Hematology Analyzer 3 Part differential with UPS	A
28	Hematology Analyzer 5 Part differential with UPS	A
29	ICU Central Station for cardiac monitors	A
30	ICU Ventilator (Neonatal& Pediatric & Adult)	A
31	Laparoscope machine for Gynea /OBS and General	A
32	Mobile C-Arm/ Image Intensifier (Fluoroscopy)	A
33	Mobile X-Ray plant 300 mA/125KV AC & Battery Operated	A
34	Nasopharyngo scope with suction	A
35	Operating Microscope for ophthalmology	A
36	Semi-Automated Chemistry Analyzer with UPS	A
37	Sigmoido scope with universal lighting	A
38	Sinus Endoscopy set with proof puncture needles	A
39	Slit Lamp	A
40	Transport / Portable Ventilator for Ambulance	A

41	Ultrasound machine (General purpose) within built trolley mounted	A
42	X-Ray Plant 300mA in built or external AVR and UPS	A
43	X-Ray Plant 500mA With inbuilt or external AVR and UPS	A
44	X Ray Plant 500mA (3-Phase)	A
45	Yag Laser	A
46	24 Hour BP Monitoring machine	B
47	Air Drill with Cylinder/Orthopedic pneumatic drill with cylinders.	B
48	Arterial Blood Gas Analyzer with UPS	B
49	Autoclave Automatic 100 Liters	B
50	Autoclave Automatic 150 Liters	B
51	Autoclave Automatic 200 Liters	B
52	Autoclave Automatic 100 Liters Sliding door	B
53	Autoclave Automatic 150 Liters Sliding door	B
54	Autoclave Automatic 200 Liters Sliding door	B
55	Automated Electrolyte Machine with UPS	B
56	Automated ESR Analyzer	B
57	Automatic Blood Bag Shaker	B
58	Automatic Film Processor	B
59	Baby Incubator	B
60	Baby Suction Machine	B
61	Binocular Microscope	B
62	BIPAP	B
63	Blood Bag Tube Sealer	B
64	Blood Bank Refrigerator	B
65	Centrifuge (Bench Top)	B
66	Cervical and Lumbar Traction Table	B
67	CPAP	B
68	CPR Machine	B
69	CTG Machine	B
70	Defibrillator	B
71	Deionizer	B
72	Delivery table/ D&C Table	B
73	Dental Unit with Chair and regulator (10 KVA)	B
74	Dental X-ray	B
75	Distillation water Assembly	B
76	Dry Heat Sterilizer/ Hot air oven	B
77	ECG Machine 12 channels	B
78	ECG Machine 3 channels	B
79	ECT Machine	B
80	EEG 32 Channels	B
81	Electric Amalgamator	B
82	Electric cautery (Dental)	B
83	Electric Ripple mattress	B
84	Electric surgical unit Diathermy	B

85	Electro Mechanical Operation Table	B
86	Emergency light with single reflector AC/DC Or Examination light AC/DC	B
87	EMG 4 Channels	B
88	ENT workstation (Examination +treatment)	B
89	Fracture Operation Table with Ortho Traction Attachment	B
90	Glucometer	B
91	Gynae Vacuum Suction Apparatus/vacuum extractor with trolley	B
92	Head Light with Cool Illumination	B
93	HFNC	B
94	Humidifier	B
95	Hydraulic Operation Table	B
96	Indirect Ophthalmoscope	B
97	Infant Warmers (Radiant Warmer)	B
98	Infra-Red Radiator Large	B
99	Infra-Red Radiator Small	B
100	Infusion pump	B
101	Laboratory Incubator	B
102	Microtome Machines	B
103	Microvent	B
104	Mini Autoclave For dental	B
105	Nebulizer	B
106	Ophthalmoscope	B
107	Ophthalmoscope + Retinoscope Rechargeable	B
108	Orthopedic Drill Battery operated	B
109	Oxygen Concentrator	B
110	Paraffin Wax Bath For Foot	B
111	Paraffin Wax Bath For Hand	B
112	PH Meter	B
113	Phototherapy Unit	B
114	Point of care Testing(POCT) analyzer	B
115	POP cutter / Plaster Cutting Saw	B
116	Portable lamps AC/DC or Emergency light AC/DC	B
117	Pulse Oximeter	B
118	Pure Tone Audiometer	B
119	Resuscitation Trolley / ICU Trolley / CPR Trolley	B
120	Shadow less lamp (Ceiling type) or Ceiling OT light for minor OT or Ceiling OT light for post mortem	B
121	Shoe Covering machine	B
122	Sonic Aid Machine/Fetus Heart Detector	B
123	Spirometer/ Pulmonary function unit	B
124	SS Filtration Assembly	B
125	Suction machine Heavy Duty/ Electric suction Machine	B
126	Syringe Destroyer	B
127	Syringe Pump	B

128	Therapeutic Ultrasound	B
129	Three Channel Holter monitor	B
130	Transcutaneous Electrical Nerve Stimulators (Tens)/Electric Stimulator	B
131	Ultra Violet Lamp Large	B
132	Ultra Violet Lamp Small	B
133	Ultrasounic Nebulizer	B
134	Urine meter	B
135	Vein Detector	B
136	Vessel Sealing System	B
137	Vortex mixer	B
138	Water Bath	B
139	Air 240 Cft Cylinder	C
140	Air 48 Cft Cylinder	C
141	Baby Cots	C
142	Bed side Locker	C
143	Bed side steel stairs	C
144	Bed with side Table and over bed trolley (local)	C
145	Beds with side table over bed trolley(imported)	C
146	CO2 240 Cft Cylinder	C
147	CO2 48 Cft Cylinder	C
148	Couch for Ultrasound / Examination couch	C
149	Cylinder Trolley 240 CFT	C
150	Cylinder Trolley 48 CFT	C
151	Dissection Table (small)/ Mortuary table	C
152	Dissection Table(large)/Mortuary table	C
153	Dressing Trolley	C
154	Drip stand	C
155	Dry Clean Trolley	C
156	Electric Cardiac Bed/ICU Bed	C
157	Fire extinguisher 4 Kg	C
158	Fire extinguisher 6 Kg	C
159	Fire extinguisher 9 Kg	C
160	Folding Screen	C
161	Gynae examination couch	C
162	Instrument Trolley	C
163	Manual Cardiac Bed/ICU Bed	C
164	Nitrous Oxide 240 Cft cylinder	C
165	Nitrous Oxide 48 Cft cylinder	C
166	Orthopedic Traction Bed	C
167	Oxygen 240 Cft cylinder	C
168	Oxygen 48 Cft cylinder	C
169	Patient electric bed	C
170	Patient Trolley	C
171	Revolving steel stool	C

172	Stretcher (Imported)	C
173	Stretcher (Local)	C
174	Surgeon revolving steel stool	C
175	Wheel Chair	C
176	Adult weighing scale	D
177	Ambo bag Adult	D
178	Ambo bag Paeds	D
179	Analytical/Electronic Balance	D
180	Attendant bench	D
181	Baby Anesthesia Set	D
182	Baby Resuscitation Apparatus	D
183	Baby weighing scale	D
184	Bed Sheet	D
185	Binocular Magnifier	D
186	Blanket	D
187	Blood Screening Counter	D
188	Box for disposal of sharps	D
189	BP apparatus with stand	D
190	BP mercury desktop with peads and adult cuff	D
191	BP Set Wall Mounted	D
192	Breast pumps	D
193	Centrifuge Tubes (Glass)	D
194	Centrifuge Tubes (Plastic)	D
195	Clamps	D
196	Containers for sputum	D
197	Containers for Urine	D
198	Cover Slip	D
199	Cupboard Steel Large	D
200	DLC Counter	D
201	Ear Syringe	D
202	ENT Diagnostic Set (adult and Paeds)	D
203	ESR Pipettes	D
204	ESR stand for five Tube	D
205	Examination torch	D
206	FSP Pipette	D
207	Glass pipettes (different sizes)	D
208	Glass Slide	D
209	Glass Wares	D
210	Haemo cytometer	D
211	Hangers Various Size	D
212	Immersion Rod	D
213	Jester (1 to 10 ul) Adjustable	D
214	Jester (10 to 100ul) Adjustable	D
215	Jester (100 to 1000ul) Adjustable	D

216	Jester Fix 1000ul	D
217	Jester Fix 100ul	D
218	Jester Fix 10ul	D
219	Jester Fix 20ul	D
220	Jester Fix 500ul	D
221	Jester Fix 50ul	D
222	Jester Fix 5ul	D
223	Lancets	D
224	Laryngeal Face Mask (small, Medium & large size)	D
225	Lead Apron	D
226	Lead Glass Shield	D
227	Lead Gloves	D
228	Lens Set(Plus 78 D)	D
229	Manual ESR System	D
230	Manual Film Processor	D
231	Manual Suction Apparatus for ICU	D
232	Mattress Foam with Raxine Cover	D
233	Mattress Foam with Raxine Cover Medical Grade	D
234	Measuring Stand Infant	D
235	Medicine (Iron Rack) 8x6x2	D
236	Micropipette Digital Different size	D
237	OPD chairs S.S	D
238	ORS feeding containers and spoons	D
239	ORS measuring jug	D
240	OT Caps	D
241	OT Gown	D
242	OT Sheet	D
243	OT Shoes	D
244	Otoscope Rechargeable	D
245	Oxygen Cylinder Key	D
246	Oxygen Flow Meter	D
247	Oxygen Flow Meter with humidifier	D
248	Oxygen gauge	D
249	Peak Flow Meter	D
250	Pediatric Circuit	D
251	Pillow with cover	D
252	Pipette stands	D
253	Plastic Apron	D
254	Proctoscope for adult & child	D
255	Randall Baker Face Mask all sizes set	D
256	Reagent Bottles	D
257	Refraction Box	D
258	Safe Light for Dark Room	D
259	Sahli Hemoglobin meter	D

260	Sam Circuit all sizes	D
261	Steel Almirah for Medicines	D
262	Steel File cabinet	D
263	Stethoscope	D
264	Stethoscope Nursery	D
265	Stylets Adult / Paeds	D
266	Table Cover large	D
267	Table Cover small	D
268	Test Tube holder	D
269	Test Tube Racks Stainless Steel	D
270	Test Tubes	D
271	Test Tubes Racks wooden	D
272	Thermal Gun	D
273	Tonometer	D
274	Vaccine carrier and ice pack	D
275	Vision testing drum	D
276	Waste bin sets (Comprising 3 bins of White, Yello and Red Color each measuring)	D
277	Wet Film Stand	D
278	Wheel Chair Folding type	D
279	Wire Loops	D
280	Wooden Boxes	D
281	X-Ray Cassette 10 x 12 with Green screen.	D
282	X-Ray Cassette 12 x 15 with Green screen	D
283	X-Ray Cassette 14 x 17 with Green screen.	D
284	X-Ray Cassette 8 x 10 with Green screen.	D
285	X-Ray Illuminator Double Table Top/ X-Ray Viewer / X-Ray Viewing Box	D
286	AC 1 tone Split unit inverter type	E
287	AC 1.5 tone Split unit inverter type	E
288	AC 2 tones Split unit inverter type	E
289	Door Air Curtain	E
290	Electric Geysers 10 Gallons	E
291	Electric Geysers 15 Gallons	E
292	Electric Water Cooler 40 Litters with Filter	E
293	Electric Water Cooler 60 Litters with Filter	E
294	Electric Water Cooler 80 Litters with Filter	E
295	Gas Geyser 30 Gallon	E
296	Gas Geyser 50 Gallon	E
297	ILR/Deep Freezer	E
298	Refrigerator 12 CFT	E
299	Refrigerator 14CFT	E
300	Refrigerator 18 CFT	E
301	Photocopier	E
302	Printer	E
303	Scanner	E

304	Computer	E
305	Laptop	E
306	Multimedia Projector	E
307	Generator 40 KVA	F
308	Generator 50 KVA	F
309	Generator 100KVA	F
310	Generator 200KVA	F
311	R.O water purification plant for dialysis Machine	G
312	60KVA three phase Automatic voltage regulator	G
313	30 KVA single phase Automatic voltage regulator	G
314	5 KVA UPS	G
315	5KVA Solar Off Grid Hybrid Inverter	G
316	All Surgical instruments and instrument sets	C

S. No	Nomenclature	Specifications	Category
1.	Air Purification System	<ul style="list-style-type: none"> Automatic air purification system Air purification system for the removal of bacteria, viruses, and gases from indoor areas of hospitals, OT/ICU/dental/labs, and Wards. Air Cleaning capacity 2000 Cubic feet per hour or more Minimum particle removal size 0.001um or less. Should have filter less technology. Cleaning efficiency 99.99 %. Unit should be wall mounted. Input Power 220VAC, 50Hz 	A
2.	Anesthesia Machine with Cardiac Monitor having two vaporizers	<p><u>Anesthesia unit with 2 Vaporizers and inbuilt ventilator</u></p> <p>Unit shall be comprised of the following components.</p> <ul style="list-style-type: none"> Non interchangeable pipeline inlets. Pipeline and cylinder gauges for O2 and N2O. Pin index cylinder yokes for at least one or more cylinders of O2 and N2O each. N2O cut off device in case of O2 failure. O2 failure alarm. Gas out let and O2 flush control. Lockable casters. Monitor shelf. Bar assembly for mounting of at least 2 vaporizers. Impact resistant and easy to clean frame. Cleanable works surface. Absorber support arm. Three gas flow meter unit electronic/ manual. O2, N2O and Air (4-bar) hoses. Isoflurane and Sevoflurane vaporizer (models of the vaporizers must be mentioned). Should support future upgrade for AG, Paramagnetic oxygen monitoring and EtCO2 (Should be quoted optional) One or more drawer's unit power outlets with 4 or more sockets. Auxiliary O2 outlet. Writing shelf/platform. Soda-lime absorber with CO2 bypass function ,1-2 Kg complete with valve for bag/ventilator, manometer, 3 liter breathing bag, breathing tube, mouth, and Y piece. <p>Ventilator:</p> <ul style="list-style-type: none"> 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. Ventilation mode: VCV, PCV, SIMV-VC, SIMV-PC, SIMV-VG, CPAP, PSV Electronic Microprocessor controlled. 	A

- On/Off switch.
- Breathing mode selection. (Standby/Volume/Spontaneous and pressure).
- Built in monitor 12" or better color screen to display all the mentioned parameters.
- Inverse I: E Ratio Capability.
- Able to display P-V, P-F, F-V lung function loop and store up to 2-3 lung function loops.
- 3 waveform and lung function loop can be displayed simultaneously in one screen.
- Gas specific input connectors (Air/Oxygen ISO)
- Tidal Volume from 20 ml to 1400ml or better on either side
- Rate or frequency 4 to 100bpm or better on either side
- I:E ratio from 4 : 1 to 1 : 8 or better on either side
- PEEP off from 3 to 30 cmH₂O or better on either side.
- Inspiratory pressure limits from 10 to 60 cmH₂O or better.
- Adult bellows graduated from approximately 20ml to 1400ml.
- Battery backup (90 minutes or more).

Audio Visual Alarm for the following:

- Alarm mute.
- Low/High FiO₂ Alarms (18% to 100%).
- Low Supply Pressure
- High Airway Pressure.
- High Continuous Air Pressure
- Low Pressure
- Incorrect rate or Ratio
- Main failure.
- Low Battery.
- The ventilator shall be supplied complete with drive hose, cylinder connector and power cable.

The following RE-USABLE AND AUTOCLAVABLE accessories shall be supplied with the unit.

- | | |
|---------------------------------------|---------|
| • Reusable Adult Breathing system | 2. No's |
| • Reusable Pediatric Breathing system | 1. No's |
| • Re-breathing bag 0.5l | 3. No's |
| • Re- breathing bag 1L | 3. No's |
| • Re-breathing bag 2L | 3. No's |
| • Forceps Magill adult | 2. Nos |
| • Forceps Magill Child | 2 No's |

Multi Parameter Patient Monitor

(3ch 5 lead ECG, SpO₂, NIBP, Dual IBP, TEMP, Resp., ETCO₂)

- Display for easy Viewing 12" or better color TFT/LCD/ LED for easy set-up (with all parameters display).
- ECG, SpO₂, NIBP, 2-IBP, TEMP, and Respiration
- EtCO₂ (Side stream/main stream type with basic accessories)
- 15 or more Arrhythmias analysis should be detected and alarmed.

		<ul style="list-style-type: none"> • Multi-lead ECG algorithm • S-T and QT Analysis • Pacemaker detection. • Support heart rate analysis and dynamic NIBP analysis • Save up to 500 Event management and 48 hours waveforms. • IBP cable and sensor kit • Up to 72 hours or better of graphic and tabular trend of all parameters, <p><u>PERFORMANCE:</u></p> <p><u>Heart rate:</u> 30 ~ 300 bpm or better on either sides And Ped/Neo:15-350bpm or better</p> <p><u>Respiration</u></p> <ul style="list-style-type: none"> • Respiration rate: 2~150bpm or better on either side. <p><u>SPO2:</u></p> <ul style="list-style-type: none"> • Range: 30 ~ 100% or better on either side • Neonate and adult probe. <p><u>Temperature:</u></p> <ul style="list-style-type: none"> • Range; 0 -50 degree C or better <p><u>NIBP:</u></p> <ul style="list-style-type: none"> • Range: 15-260 mmHg (\pm 10 mmHg) <p><u>GENERAL:</u></p> <ul style="list-style-type: none"> • Alarm: All parameters on/off selective independently • Power input 220Vac,50Hz • With Battery Backup time: Minimum 05 hours or better • ACCESSORIES: • ECG 5 Lead cable. 1 • Disposable Electrodes Adult, Neonate & Paeds. 20 each • SPO2 Finger sensor with fixed or detachable extension (each for adult, Peads and neonate) 1 • NIBP Reusable Neonate, Paeds & Adult Cuff 2 • NIBP Hose 1 • AC power code 1 • Ground cable 1 • Operation Manual 1 • ETCO2 (Side stream) with basic acc. 2 • IBP Cable 2 • Temperature sensor & cable 2 <p>Note: Patient monitor and Anesthesia Machine must be compatible with each other. Separate price must be quoted for Anesthesia machine and Patient Monitor</p>	
3.	Argon Laser	<ul style="list-style-type: none"> • Wave Length: 532nm • Power: 1.2W or better • Pulse Duration: 0.1sec to 1sec or better • Aiming Beam: 635nm – 650nm • Cooling: Thermoelectric/Air cooling • With Foot Switch • Spot Size: 50um – 500um 	A

		<ul style="list-style-type: none"> • Single Spot mode: Single, Repeat • Standard slit lamp • Standard filter • Laser application lenses-One macular grid, one standard PRP and one wide field lens • Laser Probe: Straight: <ul style="list-style-type: none"> 20G Qty 1 23G Qty 1 25G Qty 1 Curved 20G Qty 1 Flexible Curved: <ul style="list-style-type: none"> 23G Qty 1 25G Qty 1 Steerable: <ul style="list-style-type: none"> 23G Qty 1 25G Qty 1 <p>(Price should be quoted separate for laser probe)</p> <p><u>Accessories:</u></p> <ol style="list-style-type: none"> 1. Power Foot Switch 2. Dual Unit 3. Expansion Box 4. CB top plate attachment unit 5. Safety goggles 6. Goldman four mirror lens 7. Area centralis lens 	
4.	Auto Refractor with Karatometer	<p>Technical Specification:</p> <p><u>Refraction measurement,</u></p> <ul style="list-style-type: none"> • Sphere -20 T0 22D or better (VD 10mm) (0.01/0.12/0.25D step). • Cylinder 0 to $\pm 10D$ or better (0.01 / 0.12 / 0.25D step). • Axis Angle 0 to 180° or better (1° step). <p><u>Measurement of Corneal Radius:</u></p> <ul style="list-style-type: none"> • Curvature radius 5.0-10.0 mm or better (0.01mm step). • Cylindrical power 0-$\pm 10D$ or better. • Axis Angle 0-180 degree (1-degree step or better). • Pupil diameter measurement range: \varnothing 2.0mm – \varnothing 8.5mm or better. • Vertex distance: 0, 10, 12, 13.5, 15mm or better. • PD Measurement range 50-85 mm (1mm step) • In built Thermal Printer with automatic cutter • LCD display: color 5.7 Inch or better. • Power saves: OFF, 3, 5, 10 min • (Selectable) Standard Accessories: Test eye; 1No. • Printer paper: 3 Rolls: Chin rest Paper: 1 pack (sheets as per standard). Chin rest pin: 2 No. • Dust Cover: 1 No. • Contact lens holder: 1 No. • Operation manual. • Local Motorized stand 	A

5.	B. Scan	<p><u>Ophthalmic ultra sound for A -scan biometry, B –scan with pachymetry</u></p> <p><u>B-mode:</u></p> <ul style="list-style-type: none"> • Gain adjustable 20 -110db or more. • TGC 0-30db or better. • Dynamic range 25 – 80db or more • Probe: 10 MHz or better. • Scanning angle: 30 to 60 degree or better. <p><u>A scan:</u></p> <ul style="list-style-type: none"> • Probe: 8Mhz or more. • Depth 1 – 50mm or more. • Operating modes cataract, aphakic, phakic and manual. • Calculation: SRK, SRK II, HOLLADAY, SRK/T.,HOOVER-Q, POST REFRACTIVE, HAIGIS. <p><u>PACHYMATRY:</u></p> <ul style="list-style-type: none"> • PROB: 20 Mhz or more • Measurement range: 110 -1500 micro meters or better on either side. • Operating mode: auto/manual. • Maps: automatic, continuous, scanning and more if any. • With High density scanning sectors • With Axial length measurements and IOL power calculations. • Measurement accuracy for dense cataract and existing hazy media improved by pressing dense cat switch and gate select switch. • Easy data transfer. • With integral or external printer (in case of external printer brand model must be mentioned). • 8" or better color touch screen monitor. • Time gain suspension. ' • Image line real time replay function. • With A, B, B+A features. 	A
6.	Bronchoscope Flexible full set with all accessories	<p><u>Bronchoscope:</u></p> <ul style="list-style-type: none"> • The working length of the fiber scope should be 60 cm. • The outer diameter should be 5.7 mm or less. • Range of bending at the tip should be minimum 180 degree up and 130 degree down approx. • Working Channel diameter: 2.0mm or better <p><u>LIGHT SOURCE:</u></p> <ul style="list-style-type: none"> • Compatible light source (Xenon / LED) from the same manufacturer, • Automatic light adjustments to maintain optimum brightness/natural color tone. <p><u>VIDEO SYSTEM</u></p> <ul style="list-style-type: none"> • HD Camera Head compatible with scope, image processor having capability of image storage and transfer in USB etc Medical Grade monitor having display size 21 inch or more should be mounted on trolley. 	A

		<ul style="list-style-type: none"> • Voltage source : 220 Vac 	
7.	Bronchoscope Rigid	<p>Size:</p> <ul style="list-style-type: none"> • 3mm WL 200mm or better • 4mm WL 215mm or better • 5mm WL 245mm or better • 5.5mm WL 265mm or better • 6mm WL 300mm or better • 6.5mm WL 350mm or better <p>(± 10% of size)</p> <p>Forceps: -</p> <p>According to the bronchial / tracheal tubes</p> <ul style="list-style-type: none"> • Foreign body forceps, Alligator jaws 1 • Grasping forceps, soft foreign body 1 • Biopsy Forceps 1 • Fenestrated Forceps 1 • Peanut Forceps 1 • Magnetic Extractor 1 • Optical biopsy forceps 1 • Optical grasping forceps 1 • Aspiration catheter 10 <p>Accessories</p> <ul style="list-style-type: none"> • Adapter with sliding glass window plug, sealing cap, notched lens and keyhole opening, movable. • Plug for ventilation attachment of bronchoscope. • Adaptor for Bronchoscope to any type of pediatric respiration equipment. <p>Light Source</p> <ul style="list-style-type: none"> • Compatible Light Source (From same manufacturer). • Automatic / Manual Light Adjustment. • Along with fiber optic cable. <p>Video System</p> <ul style="list-style-type: none"> • HD Camera Head compatible with scope, image processor having capability of image storage and transfer in USB etc Medical Grade monitor having display size 21 inch or more should be mounted on trolley. • Voltage source : 220 Vac 	A
8.	Cardiac Monitor for Category C & low-level Hospitals	<p><u>Multi Parameter Patient Monitor</u> (5ch ECG, SpO2, NIBP, TEMP, Resp.)</p> <ul style="list-style-type: none"> • Display for easy Viewing 12” or better color TFT/LCD/ LED for easy set-up (with all parameters display). <p><u>Advance for high-end-user</u></p> <ul style="list-style-type: none"> • ECG, SpO2, NIBP, 2-TEMP, and Respiration • 16 or more Arrhythmias analysis should be detected and alarmed. • Multi-lead ECG algorithm • S-T and QT Analysis • Pacemaker detection. • Support heart rate analysis and dynamic NIBP analysis 	A

		<ul style="list-style-type: none"> Up to 72 hours of graphic and tabular trend of all parameters <p>PERFORMANCE:</p> <p>Heart rate: 30 ~ 300 bpm or better on either sides And Ped/Neo:15-350bpm or better</p> <p>Respiration</p> <ul style="list-style-type: none"> Respiration rate: 2~150bpm or better on either side. <p>SPO2:</p> <ul style="list-style-type: none"> Range: 30 ~ 100% or better on either side Neonate and adult probe. <p>Temperature:</p> <ul style="list-style-type: none"> Range; 0 -50C(32 - 122F) <p>NIBP:</p> <ul style="list-style-type: none"> Range; 15-260 mmHg (± 10mmH) <p>GENERAL:</p> <ul style="list-style-type: none"> <u>Display:</u> 12” or better Color TFT/ LCD/ LED or better <u>Alarm</u> Alarm: All parameters on/off selective independently Power input 220Vac,50Hz With Battery Backup time: Minimum 03 hours or better <p>ACCESSORIES:</p> <ul style="list-style-type: none"> ECG 5 Lead cable. 1 Disposable Electrodes Adult, Neonate & Paeds. 20 each SPO2 Finger sensor with fixed or detachable extension (each for adult, Paeds and neonate) cable of minimum 3-meter length.1 NIBP Reusable Neonate, Paeds & Adult Cuff 1 NIBP Hose 1 AC power cord 1 Ground cable 1 Operation Manual 1 Temperature sensor & cable 1 	
9.	Cardiac Monitor for Higher level Hospital	<p><u>Multi Parameter Patient Monitor</u> (5ch ECG, SpO2, NIBP, Dual IBP, TEMP, Resp.,ETCO2)</p> <ul style="list-style-type: none"> Display for easy Viewing 15” or better color TFT/LCD/ LED for easy set-up(with all parameters display) ECG, SpO2, NIBP, 2-IBP, 2-TEMP, and Respiration EtCO2 (Side stream type / main stream with basic accessories) 18 or more Arrhythmias analysis should be detected and alarmed Multi-lead ECG algorithm S-T and QT Analysis Pacemaker detection. Support heart rate analysis and dynamic NIBP analysis IBP cable and sensor kit Up to 72 hours of graphic and tabular trend of all parameters, <p>PERFORMANCE:</p> <p>Heart rate: 30 ~ 300 bpm or better on either sides And Ped/Neo:15-350bpm or better</p>	A

		<p><u>Respiration</u></p> <ul style="list-style-type: none"> • Respiration rate: 2~150bpm or better on either side. <p><u>SPO2:</u></p> <ul style="list-style-type: none"> • Range: 30 ~ 100% or better on either side • Neonate and adult probe. <p><u>Temperature:</u></p> <ul style="list-style-type: none"> • Range; 0 -50C(32 - 122F) <p><u>NIBP:</u></p> <ul style="list-style-type: none"> • Range; 15-260 mmHg (± 10mmHg) <p><u>GENERAL:</u></p> <p><u>Alarm</u></p> <ul style="list-style-type: none"> • Alarm: All parameters on/off selective independently • Power input 220Vac,50Hz • With Battery Backup time: Minimum 05 hours or better <p><u>ACCESSORIES:</u></p> <ul style="list-style-type: none"> • ECG 5 Lead cable. 1 • Disposable Electrodes Adult, Neonate & Paeds .20each • SPO2 Finger sensor with fixed or detachable extension (each for adult, Paeds and neonate) • Cable of minimum 3-meter length. 1 • NIBP Reusable Neonate, Paeds & Adult Cuff 1 • NIBP Hose 1 • AC power cord 1 • Ground cable 1 • Operation Manual 1 • ETCO2 (Side stream) with basic acc. 1 • IBP Cable 1 • Temperature sensor & cable 1 	
10.	Cardiac Monitor with Defibrillator	<ul style="list-style-type: none"> • Multi Parameter Patient Monitor • (3ch 5 lead ECG, SpO2, NIBP, TEMP, Resp.) • Semi-automatic 200 joules or better biphasic defibrillator with monitor and AED mode. • Synchronized output with ECG. • Control of energy charging/ delivering on main panel and paddle. • The energy range should be adjustable for Paeds and adults up to 200Joules. • Charging Time for full energy will be less than 08 sec. • Screen Size of approx. 10 inch or better colored. • Display of Heart Rate: 30 to 300 bpm • ECG through Pads / paddles and 3 Lead ECG patient cable with arrhythmia detection • Built in recorder for printing of full summary on standard paper including waveforms, Frozen Waveforms, Event Summary, Tabular Trends, User test, and Configuration. • Alarms for High and low Heart rate, low battery warning. • AC 220V / 50 Hz operated. • Built-in Rechargeable battery with charger having capacity of 50 Shocks. 	

		<ul style="list-style-type: none"> • At least three hours backup on monitor. • Auto tester/self-check. • External pediatric and adults Paddles, ECG cable with reusable electrodes for adult & Paeds. • AED facility. • AED pads • Pacing facility <p><u>ACCESSORIES:</u></p> <ul style="list-style-type: none"> • ECG 5 Lead cable. 1 • Disposable Electrodes Adult, Neonate & Paeds. 20 each • SPO2 Finger sensor with fixed or detachable extension (each for adult, Paeds and neonate) cable of minimum 3-meter length. 1 • NIBP Reusable Neonate, Paeds & Adult Cuff 1 • NIBP Hose 1 • AC power code 1 • Ground cable 1 • Operation Manual 1 • Temperature sensor & cable 1 	
11.	High End Color Doppler Machine	<p>Fully Digital Beam Former Having 4,00,0000 or More Digital Processing Channels with Integrated Data Management System Having 1TB Hard Disk Drive for Still and Cine Clips Storage and 128GB or more SSD for operating system and application software.</p> <ul style="list-style-type: none"> • Modes 2D/M-Mode, Doppler, Pw, Hprf Doppler, Color Flow Imaging • System Capability 1.5 – 22 MHz or More • Tissue Harmonic Imaging • Viewing Depth: 40cms or better. • Frame Rate: 1200 FPS or better. • Built-In Cine Loop: 2000 Frames/256 MB or better. • Real time freeze & image magnification ability better than 10 x pre & post processing • Sweep Speed: Slow, Medium, Fast • 12” or better touch command screen for easy operation of the system. • System dynamic range: 50 to 220db or better <p>Doppler Mode Specifications:</p> <ul style="list-style-type: none"> • Pulse Repetition Frequency Range; PWD: 1.0 To 22 KHz • Doppler Beam Steering • On Line 4-Ports for Trans-thoracic Probes • Doppler Beam Steering and Bi-Directional Stereo Audio • Color Doppler • PW doppler must be continuously steerable in color blood flow imaging mode in real time. • Colorized Spectrum Display • Tissue Harmonic Imaging with Two Frequencies • Elastography 	A

		<p>2D Image with Color Flow</p> <ul style="list-style-type: none"> • Power Doppler <p>Standard Features</p> <ul style="list-style-type: none"> • Needle enhancement for biopsy needle visualization • Tissue doppler imaging mode • Auto image optimization / quick scan imaging for automatic stc/gain and doppler spectrum adjustment with optimal image quality by using one touch operation. • B-flow/dynamic flow imaging / e-flow • Trapezoid imaging/virtual convex imaging with linear probe • Compound/x view+/aplipure imaging for both frequency compounding and spatial compounding in b/w and color mode • N-sight / adaptive suppression / precision imaging / xflow/ cross beam to enhance b-mode imaging, detailed in layers and boundaries and sharpened outlines of the lesions and reduce cluttering. • 3D imaging for the acquisition of volume data and display of 3D images in b/w as well as color without using a 4D transducer. • B-flow with color XDclear-2/micro v/superb micro vascular imaging with spectral doppler to clearly show blood flow in tiny vessels, liver capsula, gall bladder wall etc. • Live strain rate Elastography with quantification for body organs specially breast to visualize lesions. • Live Shearwave Elastography with quantification and adjustable area based minimum 2 x 3 cm display for body organs especially liver with convex & linear probes to visualize tissue stiffness by generating images through shear wave propagation, speed, and elasticity modes. <p>Measurement Package:</p> <ul style="list-style-type: none"> • To provide comprehensive software package for measurement of distance circumference, area, time, depth etc. <p>System Complete with Following Facilities and Accessories:</p> <ul style="list-style-type: none"> • 23-Inches or better color monitor <p>Standard Probes:</p> <ul style="list-style-type: none"> • 2.0 – 5.0 MHz or More Multi-Frequency Convex Probe • 4.0 – 10 MHz or More Multi-Frequency Linear Probe • 4.0 – 10 MHz or More Multi-Frequency TVS Probe • 5 – 15 MHz High Frequency Linear <p>STD Recording Devices:</p> <ul style="list-style-type: none"> • Built-In CD/DVD Recorder for Digital Image Storage • Built-In / Separate Compatible Imported Online Ups (Minimum Backup Time > 10Minutes) • B/W Thermal Printer. (Model/ Make must be mentioned) 	
12.	Color Doppler Machine	<p>Fully Digital Beam Former Having 150,000 or More Digital Processing Channels with Integrated Data Management System Having 500GB Hard Disk Drive for Still and Cine Clips Storage.</p> <ul style="list-style-type: none"> • Modes 2D/M-Mode, Doppler, Pw, Hprf Doppler, Color Flow Imaging • System Capability 1.5 – 16 MHz or more 	A

		<ul style="list-style-type: none"> • Tissue Harmonic Imaging • Viewing Depth: 30cms or better. • Frame Rate: 500 FPS or better. • Built-In Cine Loop: 2000 Frames/256 MB or better. • Real time freeze & image magnification ability better than 4x Pre & Post Processing • Sweep Speed: Slow, Medium, Fast • 8" or better Touch Command Screen for easy Operation of the System. • System Dynamic Range: 50 to 180db or better <p>Doppler Mode Specifications:</p> <ul style="list-style-type: none"> • On Line 3-Ports for Trans-thoracic Probes • Doppler Beam Steering and Bi-Directional Stereo Audio • Color Doppler • PW Doppler Must Be Continuously Steerable In Color Blood Flow Imaging Mode in Real Time • Colorized Spectrum Display • Tissue Harmonic Imaging with Two Frequencies • Built in battery for backup. • 2D Image with Color Flow • Power Doppler • Auto Image Optimization/Quick Scan for Single Button Optimization of All Scanning Parameters Including STC Overall Gain and Doppler Spectrum. • Compound Scanning Using Frequency as Well as Spatial Compounding. • Trapezoid Imaging for Linear Probes <p>Measurement Package:</p> <ul style="list-style-type: none"> • To provide comprehensive software package for measurement of distance circumference, area, time, depth etc. <p>System Complete with Following Facilities and Accessories:</p> <ul style="list-style-type: none"> • 19-Inches or better Color Monitor <p>Standard Probes:</p> <ul style="list-style-type: none"> • 2.0 – 5.0 MHz or More Multi-Frequency Convex Probe • 4.0 – 10 MHz or More Multi-Frequency Linear Probe • 4.0 – 10 MHz or More Multi-Frequency TVS Probe <p>STD Recording Devices:</p> <ul style="list-style-type: none"> • Built-In CD/DVD Recorder for Digital Image Storage • Built-In / Separate Compatible Imported Online Ups (Minimum Backup Time > 10Minutes) • B/W Thermal Printer. (Model/ Make must be mentioned) 	
13.	CR System (computerized radiography system) with compatible UPS	<p>Digitizer Exposure size: 14"x14" / 14"x17" / 11"x14" / 10"x12" / 8"x10"</p> <p>Sampling pitch:</p> <ul style="list-style-type: none"> • 2 Types: 75 µm to 175 µm or better. Digital Gradation level • 4096 Levels (16-Bit) Processing Capability • Up to 60 Plates / hour or better <p>Console</p>	A

- Image Processing:
- Automatic Body Part recognition
- Automatic Processing Parameter study.
- Image Output:
- Maximum:
- Host: 2ch for Normal, 1ch for backup Printer: 1ch for Normal, 1ch for backup.
- DICOM Support:
- Basic Gray scale Print Management (SCU) Storage (SCU)
- Modality work list Management
- Modality performed Procedure step
- Gray scale Standard Display Function (Print output)

Computer Desktop (as per OEM manufacturer)

Or

- 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
- Memory Ram Size: 8 Giga Byte, supported up to 16 Giga Byte
- USB: 06 USB Ports or better

Monitor :

Medical grade monitor, color TFT (LCD) (model must be mentioned)

- Size: 19" or better.
- Resolution: 1280x1024 or better.
- Brightness: 300 Cd/m2 or better.
- Contrast Ratio: 2000:1 or better With
- Brightness stabilization
- Back light sensor.
- Power saving mode &
- USB Port.
- Accessories: AC power cord, Signal Cable, USB cable.

Cassettes / Imaging Plates Active dual tray system:

Total 08 No's of different sizes cassettes/ imaging plates.

- 14"x17" (2Nos)
- 11" x 14" or 12" x 15" (2Nos)
- 10" x 12" (2Nos)
- 8" x 10" (2Nos)
- 14"x14" (2Nos)

Laser / thermal with dual tray system:

- Films Size: 14"x17", 11"x14" or 12" x 15", 10"x12" 8"x10"

		<ul style="list-style-type: none"> • Film: Dry Image recording film • Image Memory: Print Memory (64MB/Standard) Number of Pixels: 50 um or better Image Data Input: 8-Bits /12-Bits. • Output Gradation: 16834 levels (14-Bits) • Image Mode: Pixel Replication / Function Interpolation Process • Processing Capability: 60-Sheets/ hour or better • Protocol: DICOM Print Management. • Compatible UPS (model, make must be mentioned) 	
14.	Cystoscope flexible set with light source complete	<p>CYSTOSCOPE FLEXIBLE SET</p> <ul style="list-style-type: none"> • Working length: as per user • Distal Tip: 4.8mm to 4.9 mm. • Working channel: 2.4mm or better • Active Deflection: 180° to 210°up,120° down or more • With Passive Deflection. • Light Carriers: 2, • Field of view: 110° to 120° minimum, • Depth of focus, 5-50 mm or better. • Complete with grasping forceps, • Fiber optic cable. • Instrument lubricant. • Biopsy port seals, cleaning brush & carrying case • With compatible light source (Xenon / LED) from the same manufacturer. <p>Video System</p> <ul style="list-style-type: none"> • HD Camera Head compatible with scope, image processor having capability of image storage and transfer in USB etc Medical Grade monitor having display size 21 inch or more should be mounted on trolley. • Voltage source : 220 Vac 	A
15.	Dialysis Machine	<ul style="list-style-type: none"> • Color TFT Monitor 10 inch or above. • Computerized programmable with graphic screen • Electronic control of flow rate and blood flow. • Both Bicarbonate and Acetate mode of dialysis application • Automatic control for various set bicarbonate proportions. • Variable Sodium control concentration system. • With Sodium and Ultra filtration Profiles • With bicarbonate Profiles. • Variable's temperature control • Programmable Ultra filtration control system. • Ultra-filtration with diffusion • With Ultra filtration rate control – fully adjustable / controllable and visible on the screen • Balance Ultra filtration control system. • Anticoagulant Management System with bolus option intact program system. • Automatic priming system with full display system • Automatic clean and rinsing mechanism. • Display for services diagnostic and rinsing mechanism. 	A

		<ul style="list-style-type: none"> • With automatic thermal disinfection mechanism (up to or 80°C or above) • Blood pump with variable blood flow rate which should be highlighted on the machine. • Heparin pump with automatic start, stop bolus with flow rate 0 to 10cc per hour or better on upper side. • Variable flow rate (300-700ml per min or better on either side) • With adjustable temperature control system, up to 39°C • With venous pressure monitor -50 to 400mm Hg or better on either side. • With Arterial pressure monitor “-400mm Hg to +400mm Hg or better on either side • With Air bubble detector and Alarm system. • Blood leak Detector. • With conductivity control system-both for Acetate and bicarbonate solution • Blood pump capability for both adult and paed. • Real time graphical / display for dialysis treatment /Does delivery (KT/V) • Real time show dialysate pressure. • Real time show dialysate temperature. • Real time show dialysate flow. • With Endotoxin Filter should have auto ON OFF facility. • With battery backup service : 25 minutes or better • With inbuilt integrated BPM system • Bicarbonate cartridge • Storage of up to Ten patient records. • Disinfection history. • Input power 220VAC, 50Hz. <p>Compatible RO plant with storage tank (Rust-free) (locally assembled with imported parts) to run 4 machines at a time, model, make should be mentioned price should be quoted separately.</p>	
16.	Digital Fluoroscopy Unit	<p>COMPRISING OF FOLLOWING: -</p> <ul style="list-style-type: none"> • Microprocessor Controlled, High Frequency, 01 Tube Rad/Fluoroscopy type X-ray Generator, 800/1000 mA /150 KV /80 KW. • 89/30 or more Degree Remote Controlled Rad / Fluoro tilting table, 2-way movement of table top, tube column with Motorized collimator. • 19 Inch or more LCD Medical Grade monitor on trolley. • Overhead rotating anode double Focus x-ray tube • 01 pair of H.T Cable <p>X-RAY GENERATOR</p> <ul style="list-style-type: none"> • Microprocessor Controlled • High Frequency, 01 Tube Radiography / Fluoroscopy Operation. • Maximum mA Radiography: 800/1000mA • Maximum KVp Radiography: 150 KV 	A

- Minimum KV radiography: 40 KV
- Power Rating: 80 KW
- Minimum Exposure Time: 1 millisecond
- Maximum mA Fluoroscopy: 4 mA or more
- Maximum KVp Fluoroscopy: 100 KV or better
- Self-diagnostics System with error code reporting for fast troubleshooting.
- Automatic mains Line compensation
- Three Point Console
- Anatomical Programming
- Automatic Brightness Control
- Power Requirement: 3 Phase 380/480 V / 50 Hz
- Integrated Operating console with that of remote-controlled table 89/ 30 or more Degree Remote Controlled Tilting table for Rad/ Fluoroscopy
- Diagnostic 89/ 30 or more Degree Remote Controlled Rad / Fluoroscopic Table
- With 2-way movement of table top, 9 Inch Triple field Image Intensifier.
- 2 Nos 19 Inch or more LCD Medical Grade Monitor (Model and Make must be mentioned) on Trolley.
- Automatic light control

Motorized Tilting Table

- Microprocessor controlled for safety, superior reliability, and real time-check of the equipment, including the self-diagnosis function.
- Rad/ Fluoroscopy Diagnostic table to offers full patient support for all radiographic and fluoroscopic procedures from 90 degree vertical through 30-degree Trendelenburg with an automatic stop at the horizontal position.
- Motor driven collimator
- Remote controlled compression, the compression force, adjustable 80 N or more.

Flat Panel DEECTOR

- Detector type: amorphous silicon
- Active area nominal: 14 x 14 Inch
- Pixel size: not more than 160 um

Tube Arm

- Feature of Longitudinal displacement of Tube arm should be available with longitudinal movement of tabletop.
- Focus-film distance: Continuously variable focus-film distance with preset positions at for very high-quality degree in the execution of cardiac and lung examinations.
- Oblique incidences: - +/-40° or better along a longitudinal displacement of 40 cm or better.
- Motorized Collimator

		<p>Accessories</p> <ul style="list-style-type: none"> • Adjustable height footrest • Shoulder rest • Handgrips • Compression belt • Leg support <p>X-Ray Tube</p> <ul style="list-style-type: none"> • Rotating anode double Focus x-ray tube • Small focus: 0.6 x 0.6 mm • Large Focus: 1.2 x 1.2 mm • Anode heat storage capacity: 250 KHU or better • Tube Voltage: 150 KV • Pair of HT Cable: Not less than 15 meters • Software: <p>Software must be DICOM supported. should have the facility to zoom, invert image, contrast adjustment, to export patient diagnostic images to usb and through PACS system, have the facility to show patient ID, name gender, age, and hospital name in the diagnostic image.</p>	
17.	Digital OPG X Ray	<p>Digital panoramic (child, adult), view lateral and Bitewing (child, adult) imaging Upgradable to Ceph Micro Processor controlled</p> <ul style="list-style-type: none"> • X-ray generator: High frequency inverter type. • Modes for child and adults. • Anode Voltage: 60-90 kV or better on either side in steps of 1 to 2KV • Anode Current: 4-12 mA or better on either side • Exposure Time: 2-20sec • Focal spot:0.5mm • Filtration:2.5 mm Al or better • Computer Desktop with 19-inch medical grade monitor and single tray Dicom printer • Sensor acquisition of 14-bit images. • Pixel pitch 100 micron or better • Control: Automatic Exposure (AEC) • Vertical Movement: Motorized and manual Adjustment • Patient Positioning: Manual Adjustment • Chin rest Centering : Laser Light • 2 No's Ultra-light Lead Apron for patient and operator: with 0.5mm Thick lead sheet • Input power 220VAC, 50Hz • Compatible UPS for computer system back up time at least 30 minutes. • Height Adjustable stool for patients. 	A

18.	DR system for existing X-ray machines with compatible UPS	<p>Flat panel detector with acquisition software and dry film printer Flat panel detector (model and make must be mentioned)</p> <ul style="list-style-type: none"> • The Flat panel Detector should be wireless. • Pixel size of 150 Microns or better. • The size (active area) of the Flat panel Detector should be at least 14 x 17 inch. • Image's pre-viewing should be available in about less than 3secs after exposure and the cycle time should be less than 10 seconds. • Should have a minimum image depth of 12 bit or better. • Matrix size 2300 x 2800 or better. • KV rang 40 ~ 150kVp • The flat panel detector should be able to Rotate/Tilt for various applications. • 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. • AED Mode should be present • A to D conversion: 14 bits or more. • Easy positioning at the time of out of bucky exposures. • The detector should be able to work at normal room temperature and humidity. • The detector system should not require frequent calibrations on daily start-up • Offered detector should have load bearing capacity of 160kgs or more. • Backup time Battery • Life of the battery 120 images @ 90 s cycle • Recharging time less than 3 hours • One extra Lithium Battery with the detector should be provide. <p>IMAGE ACQUISITION IMAGE PROCESSING</p> <ul style="list-style-type: none"> • PC based computerized IMAGE ACQUISITION IMAGE PROCESSING with window-based software. • 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 • The software has capability to support 2 detectors or more • Image saving in CD/DVD and DICOM format should be possible. • 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 • The system should have ready DICOM interface and networking capability with PACS. • Post processing function must be available. Measurement Tools, Window Level, Rotate, Repeat / Reject, Magnify, Zoom , Images elaboration with examination specific algorithms • Filming options should be available • Power Supply – 220V, 50Hz. 	A
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		<ul style="list-style-type: none"> • Dry film printer with at least 2 online film trays, for printing the digital images (Model and brand must be mentioned) • Compatible UPS (model, make must be mentioned) 	
19.	High End Echo Machine	<p>Fully digital beam former having 4,000,000 or more digital processing channels with integrated data management system having 1TB hard disk drive for still and cine clips storage and 128GB or more SSD for operating system and application software.</p> <ul style="list-style-type: none"> • Modes: • 2d/m-mode, doppler, pw, cw & hprf doppler, color flow imaging • System capability 1.5 – 22 mhz or more, m-mode, tissue harmonic imaging, • Tissue doppler imaging with pulse wave tdi doppler spectrum. • Viewing depth: 40cms or better. • Frame rate: 1200 or better. • Built-in cine loop: 2000 frames/256 mb or better. • Real time freeze & image magnification ability better than 10 x pre & post processing • Sweep speed: slow, medium, fast • 12” or better touch command screen for easy operation of the system. • System dynamic range: 50 to 220db or better <p>Doppler mode specifications:</p> <ul style="list-style-type: none"> • Pulse repetition frequency range. Pw : 1 – 20 khz Cwd : 1 – 50 khz • Doppler beam steering • On line 4-ports for trans-thoracic probes. • Doppler beam steering and bi-directional stereo audio. • Color doppler • Both cw & pw doppler must be continuously steerable in color blood flow imaging mode in real time colorized spectrum display. • Tissue harmonic imaging with two frequencies • 2d image with color flow • Power doppler • Auto image optimization/quick scan for single button optimization of all scanning parameters including stc overall gain and doppler spectrum. • Compound scanning using frequency as well as spatial compounding. • Trapezoid imaging for linear probes. <p>Measurement package:</p> <ul style="list-style-type: none"> • 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) <p>System completes with following facilities and accessories:</p> <ul style="list-style-type: none"> • 21-inches or better display (lcd/tft). 	A

		<ul style="list-style-type: none"> • Ecg including cables and transducers/electrodes. <p>Standard probes</p> <ul style="list-style-type: none"> • 2-5 mhz or more multi-frequency sector probe for adult. (model and make must be mentioned) • 2-7.0 mhz sector probe for paed. (model and make must be mentioned) • 4.0 – 10 mhz or more sector probe for neonates. (model and make must be mentioned) • 4.0 – 10 mhz or more multi-frequency linear probe <p>Std recording devices:</p> <ul style="list-style-type: none"> • Built-in cd/dvd recorder for digital image storage • Built-in / separate compatible imported ups (minimum backup time > 10minutes) • B/w thermal printer. (model/make must be mentioned) 	
20.	Echo Machine	<p>Fully digital beam former having 150,000 or more digital processing channels with integrated data management system having 500GB hard disk drive for still and cine clips storage.</p> <ul style="list-style-type: none"> • Modes: • 2d/m-mode, doppler, pw, cw & hprf doppler, color flow imaging • System capability 1.5 – 16 mhz or more • Tissue harmonic imaging, • Viewing depth: 30cms or better. • Frame rate: 500 or better. • Built-in cine loop: 2000 frames/256 mb or better. • Real time freeze & image magnification ability better than 4x pre & post processing • Sweep speed: slow, medium, fast • 8” or better touch command screen for easy operation of the system. • System dynamic range: 50 to 180db or better <p>Doppler mode specifications:</p> <ul style="list-style-type: none"> • On line 3-ports for trans-thoracic probes. • Doppler beam steering and bi-directional stereo audio. • Color doppler • Colorized spectrum display. • Tissue harmonic imaging with two frequencies • 2d image with color flow • Power doppler • Auto image optimization/quick scan for single button optimization of all scanning parameters including stc overall gain and doppler spectrum. • Compound scanning using frequency as well as spatial compounding. • Trapezoid imaging for linear probes. • 2D wall motion tracking for strain rate imaging. • Stress echo system. • Upgradeable to contrast harmonic imaging. <p>Measurement package:</p>	A

		<ul style="list-style-type: none"> 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) <p>System completes with following facilities and accessories:</p> <ul style="list-style-type: none"> 21-inches or better display (lcd/tft). <p>Standard probes:</p> <ul style="list-style-type: none"> 2-5 mhz or more multi-frequency sector probe for adult. (model and make must be mentioned) 3-7.0 mhz sector probe for paed. (model and make must be mentioned) <p>Std recording devices:</p> <ul style="list-style-type: none"> Built-in cd/dvd recorder for digital image storage Built-in / separate compatible imported ups (minimum backup time > 10minutes) B/w thermal printer. (model/make must be mentioned) 	
21.	Elisa Machine (Reader, incubator shaker and Washer) Programmable with UPS	<p>Consisting of The Following Components.</p> <p>For micro plate assay.</p> <p>Plate Reader:</p> <ul style="list-style-type: none"> Eight channel vertical light path filter photometer End point and kinetic reading modes Software for calculation modes Storage for up to 96 assay protocols Range 400 to 670nm Bandwidth up to 10nm Accuracy $\pm 2\%$ Precision 0.5% Reading speed 5 secs/ plate or better RS232 interface or USB interface <p>Incubator / Shaker:</p> <ul style="list-style-type: none"> Digitally operated 8-speed or better shaker. Can hold two 96 well micro plates for mixing and / or incubating Temperature modifiable from ambient to 40°C with 0.1°C increment With lid for light protection Digital timer controls shaking. With LED display <p>Washer 8/12 channel:</p> <ul style="list-style-type: none"> Micro plate washer to deliver washer buffer and ensure complete liquid removal. Minimum plates 96 Programs for flat, round and V type plates. Automatic plate detection Auto alignment and row detection Complete with wash, rinse, waste bottles and piping. <p>UPS:</p> <ul style="list-style-type: none"> Branded and compatible UPS for at least 30 minutes backup. Input Voltage : 110-260v 50Hz, Output : 220v 50 Hz. 	A

		The bidder will provide kits for HCV, HBsAg, HIV patients along with the machine free of cost at the time of installation	
22.	Endoscope Gastro duodenal	HIGH-DEFINITION GASTRO-VIDEO SCOPE <ul style="list-style-type: none"> • High definition • Compatible with standard set of accessories. • Field of view: 140mm or more • Working length: 1030mm or more • Outer diameter: 9.8 mm or less • Depth of field 3 to 100 mm or better on either side • Angulation Range Up 210⁰ Down 90⁰ or better on either side Right 100⁰ Left 100⁰ • Channel Diameter 2.8mm • Complete with high Standard xenon / LED light source (from same manufacturer) and video processor with USB Port. • With medical grade monitor 26" or better Resolution: 1920x1080 P or better. Brightness: 300 Cd/m2 or better. Contrast Ratio: 2000:1 or better With <ul style="list-style-type: none"> • Automatic Light Control • Back light sensor. • Accessories: AC power cord, Signal Cable, USB cable. • Along with trolley (Local). Endoscope Disinfectant <ul style="list-style-type: none"> • Locally Made (Model and make must be mentioned) 	A
23.	Esophagoscopes instruments set	<ul style="list-style-type: none"> • Esophagoscopes tube, Appr. Size 1, 6x8 mm (h x w) • WL: 350mm. • Cap with window, proximal illumination insert, Magnifier. • Universal Cap, Straight Handle, Double bellows, • Foreign Body Forceps, alligator jaws, WL: 450mm. • Universal Forceps, WL: 450mm. • Biopsy Forceps, spoon shaped, WL: 450mm. • Retrograde biopsy forceps, WL: 450mm. • Small tumor forceps, cutting WL: 450mm. • Rotation forceps for hard foreign bodies WL: 450mm. • Grasping forceps, for soft foreign bodies WL: 450mm. • Working Length: 700mm, • Ultra Slim • Instrument Channel: 3.7 mm. • Deflection (Up/Down): 180/90 deg. • Deflection (Right/Left): 110/110 deg. • Depth of focus: 5-100mm. • Biopsy Forceps, dia 2.1mm. • Injector Cannula. 	A
24.	ETT Machine	Specification: <ul style="list-style-type: none"> • PC based computerized stress test machine with window-based software. • 12-Channel Stress Test with recording, presentation and Evaluation of ECG. 	A

		<ul style="list-style-type: none"> • Manual and automatic event memory • ST-Trend and ST-Level display of all 12 channels. • Display of blood pressure, heart rate and arrhythmia. • QRS-Complex show in a superimposed mode. • Review function at any time during exercise • Standard or individual protocols. • Automatic control of treadmills in speed and elevation in load <p>QRS-Analysis:</p> <ul style="list-style-type: none"> • Analysis of the stress Test with control of histograms. • ST level and Trend histograms of all leads. • Display of QRS complex • Manual ECG with time cursor. • With built-in calipers for measurement control • ECG analysis during exercise <p>Resting software:</p> <ul style="list-style-type: none"> • Resting ECG software 12 Leads simultaneous • Data management software • Rhythm recording in resting mode • QT desperation software • Interpretation <p>Treadmill (Model and Make must be mentioned):</p> <ul style="list-style-type: none"> • Heavy duty whispers quiet even at high speed • Speed :0 – 16.0 km/h or better • Elevation: 0 ° to 20 ° • AC 220V / 50Hz • Patient weight :170 kg or better • Emergencies stop button • Side and front rail <p>Computer system (Model and Make must be mentioned):</p> <ul style="list-style-type: none"> • Branded computer system compatible with Unit. • 19 Inch TFT monitor with resolution of 1024x1024. • Alphanumeric key board and mouse. <p>CPU (Model and Make must be mentioned):</p> <ul style="list-style-type: none"> • Intel Core i7 • Processor 8Mb cache 3.40GHz • 16GB RAM DDR3 • 1TB internal Hard Disk • DVD R/W • With Mouse and Keyboard <p>Components:</p> <ul style="list-style-type: none"> • ECG Amplifier (Model and Make must be mentioned) • Patient cable • Laser printer (Model and Make must be mentioned) 	
25.	Fully Automated Chemistry Analyzer with UPS	<p>Microprocessor based windows internal or external operated system</p> <ul style="list-style-type: none"> • Samples / Hour: 180-200 or better tests, up to 320 or better tests/hr with ISE. • Sample Tray with 30 or more sample positions for primary tubes and test tubes. 	A

		<ul style="list-style-type: none"> • Regent position 30 or more • Sample Volume: 2 µL – 30 µL. • Probe Sensors: Liquid level detection and collision protection. • Probe cleaning: Automatic washing. • Wavelengths: 340nm to 670nm. • Absorbance Range: 0.0001 Abs units at 1.0 Abs. • Data Storage: 1800 or more (patient results) 50,000 or more (test results) • Port: RS-232. • 220 V, 50 Hz AC operated. • With external printer (Model must be mentioned) <p>Accessories</p> <ul style="list-style-type: none"> • Tubes 01 set (50 Tubes) • Fuse 01 • Extra Lamp 01 • User manual • Operation Software. <p>UPS:</p> <ul style="list-style-type: none"> • Branded and compatible UPS for at least 30 minutes backup. • Input Voltage : 110-260v 50Hz, Output : 220v 50 Hz. <p>The bidder will provide kits for 100 patients along with the machine free of cost at the time of installation</p>	
26.	Grey Scale Portable / Mobile Ultrasound Machine	<ul style="list-style-type: none"> • Imaging Mode: B, B/B, B/M, M, 4B • 12” or more LCD monitor • Scanning Depth: From 2.0 – 35 cm minimum or more • Hard Disk: 500 GB or more HDD • Cine loop Memory in B/B, M and B/M Mode • Zoom: Pan Zoom in Real Time & Frozen Condition • Measurement Calculation: B-Mode: Distance, Circumference, Area, Volume • Built-in Imaging Archive for storage of Still and Cine Clips • M-Mode, Distance, Time, Velocity, Heart Rate (2 Cycles) • Pulsed Wave Doppler with adjustable gate size • Software Packages: Abdomen, Urology, Gynecology, Obstetrics, Cardiology, Vascular, Small Parts, Orthopedics • Power Supply: 100-240V AC 50/ 60 Hz • TGC: 8-Segment or More • 2 or More Active Probe Connectors in Main Unit • • Tissue Harmonic Imaging • USB Ports and BNC Connector for Thermal Printer • Measurement and Calculation Software Package • Electronic Convex Array Transducer: 2.0 - 5.0 MHz or More • Electronic Linear Array Transducer 5.0 - 10 MHz or More • Built-in battery for backup of at least 90 minutes or better • Stabilizer: 1 KVA or better • Thermal printer • Gel 20 Liters • Carrying Trolley (Local Made) 	A

27.	Hematology Analyzer 3 Part differential with UPS	<p>Consisting of:</p> <ul style="list-style-type: none"> • Hematology Counter with 3 Parts differential automated. • Throughout 40 Samples / Hour or better. • Minimum 18 or better parameters including Hb, WBC, RBC, MCV, Plt, and Derived values. • Flagging of results outside user defined limits. • Micro sampling capability. • Auto Calibration Program. • Reagent level alert. • System monitoring • Automated start up and shutdown • Result storage: up to minimum 500 results. • Patient data entry and specimen recognition by Keyboard. • RS 232 Interface. • Internal Printer. • With inbuilt auto-sampler or external specimen mixer. • Consumables, Reagents, Calibrators, Controls for startup. • The bidder will provide kits for 500 patients along with the machine free of cost at the time of installation. <p>UPS:</p> <ul style="list-style-type: none"> • Branded and compatible UPS for at least 30 minutes backup. • Input Voltage : 110-260v 50Hz, Output : 220v 50 Hz. <p>Note: The bidder must quote the price / test or reagents pack of 500 tests or 1000 tests price separately.</p>	A
28.	Hematology Analyzer 5 Part differential with UPS	<p>Consisting of:</p> <ul style="list-style-type: none"> • Hematology Counter with 5 Parts differential automated. • Throughout 60 Samples / Hour or better. • Minimum 26 or better parameters including: WBC, LYM, MON, NEU, EOS, BAS, LYM%, MON%, NEU%, EOS%, BAS%, RBC, HCT, MCV, RDW-sd, RDW-cv, HGB, MCH, MCHC, PLT, PCT*, MPV, PDW-sd*. • Flagging of results outside user defined limits. • Micro sampling capability. • Auto Calibration Program. • Reagent level alert. • System monitoring • Automated start up and shutdown • Result storage: up to minimum 20,000 results. • Patient data entry and specimen recognition by Keyboard. • RS 232 Interface. • Internal Printer. • With inbuilt auto-sampler or external specimen mixer. • Consumables, Reagents, Calibrators, Controls for startup. • The bidder will provide kits for 500 patients tests along with the machine free of cost at the time of installation. <p>UPS:</p> <ul style="list-style-type: none"> • Branded and compatible UPS for at least 30 minutes backup. • Input Voltage : 110-260v 50Hz, Output : 220v 50 Hz. 	A

		Note: The bidder must quote the price / test or reagents pack of 500 tests or 1000 tests price separately.	
29.	ICU Central Station for cardiac monitors	<p>Central Station Monitor for use in intensive and coronary care units.</p> <ul style="list-style-type: none"> • Unit shall be capable of monitoring a minimum of 8 beds and a maximum of 32 beds. • Shall provide Most recent 240 hours of tabular trends and graphic trends for all parameters. • Shall allow instant alarm bed viewing. • Each bed monitor window shall always be displayed. • The user shall be able to easily configure the display. • Shall be capable of producing a shift report including graphic trends report, tabular trends. • Full patient report. • Provide graphical analytic tool for myocardial ischemia which can help to quickly view the ST value changes. <p><u>Shall be supplied with the following:-</u></p> <ul style="list-style-type: none"> • Installation Kit including Hub Controller, cabling (according to the need of institution) • Laser Printer Interface, Laser Printer (Model and Make must be mentioned) <p>Central Monitor (Model and Make must be mentioned):</p> <ul style="list-style-type: none"> • Screen size must be 32" or better. • Software from same manufacturer with all certificates <p>Branded CPU (Model and Make must be mentioned):</p> <ul style="list-style-type: none"> • Intel Core i5 or better • Processor 2.40GHz or better • 4GB RAM or better • 1TB internal Hard Disk or better • DVD R/W • With Keyboard and Mouse <p>All the parameters displayed on the monitors should also be displayed on the central station monitor and should be compatible with each other.</p> <p>Multi Parameter Patient Monitor. (Model and Make must be mentioned) (5ch ECG, SpO2, NIBP, Dual IBP, TEMP, Resp.,ETCO2)</p> <ul style="list-style-type: none"> • Display for easy Viewing 15" or better color TFT/LCD/ LED for easy set-up User selective 10 or better traces/ waveform display. • ECG, SpO2, NIBP, IBP, 2-TEMP, and Respiration • EtCO2 (Side stream type with basic accessories) • 18 or more Arrhythmias analysis should be detected and alarmed. • Multi-lead ECG algorithm • S-T and QT Analysis • Pacemaker detection. • Support heart rate analysis and dynamic NIBP analysis • IBP cable and sensor kit 	A

		<ul style="list-style-type: none"> Up to 72 hours of graphic and tabular trend of all parameters. <p><u>PERFORMANCE:</u></p> <p><u>Heart rate:</u> 30 ~ 300 bpm or better on either sides And Ped/Neo:15-350bpm or better</p> <p><u>Respiration</u></p> <ul style="list-style-type: none"> Respiration rate: 2~150bpm or better on either side. <p><u>SPO2:</u></p> <ul style="list-style-type: none"> Range: 30 ~ 100% or better on either side Neonate and adult probe. <p><u>Temperature:</u></p> <ul style="list-style-type: none"> Range; 0 -50C(32 - 122F) <p><u>NIBP:</u></p> <ul style="list-style-type: none"> Range; 15-260 mmHg (\pm 10 mmHg) <p><u>GENERAL:</u></p> <ul style="list-style-type: none"> <u>Display:</u> 15" or better Color TFT/ LCD/ LED or better (with all parameters display) Alarm Alarm: All parameters on/off selective independently Power input 220Vac,50Hz With Battery Backup time: Minimum 05 hours or better <p><u>ACCESSORIES:</u></p> <ul style="list-style-type: none"> ECG 5 Lead cable. 1 Disposable Electrodes Adult, Neonate & Paeds. 20 each SPO2 Finger sensor with fixed or detachable extension (each for adult, Paeds and neonate) 1 NIBP Reusable Neonate, Paeds & Adult Cuff 1 NIBP Hose 1 AC power code 1 Ground cable 1 Operation Manual 1 ETCO2 (Side stream) with basic acc. 1 IBP Cable 1 Temperature sensor & cable 1 <p>Note: Prices of Central Station Monitor and Patient Monitor must be quoted separately.</p>	
30.	ICU Ventilator (Neonatal& Pediatric & Adult)	<p>Ventilator, electrically operated microprocessor controlled, suitable for adult / Paeds / Neonate use.</p> <ul style="list-style-type: none"> Tidal Volume: 25 ~ 2000 ml or better on either side. Frequency: 1 ~ 120b/min or better on either side. I:E ratio: 1:7- 4:1 or better Inspiratory Time: 0.2-8s or better Inspiratory Pressure: 3-60 cmH2O or better Support Pressure: 0-60 cmH2O or better Pressure Trigger: -20- -0.5cmH2O, OFF Flow Trigger: 0.5-20 L/min (neonatal 0.1-5.0L/min), OFF PEEP: 0-30 cmH2O FiO2: 21-100% 	A

		<ul style="list-style-type: none"> • Patient Circuit: Autoclavable / disinfectible (adult, Peads & Neonate) • Supplied with pole clamp. • O2 and Air input hoses • With compatible Humidifier. <p><u>Modes:</u></p> <p>Invasive and non-invasive ventilation which could be used inside ICU or outside ICU.</p> <ul style="list-style-type: none"> • Volume control: CMV/AC , SIMV, PRVC • Pressure Control: CMV/AC, SIMV, CPAP, PS • Adaptive ventilation mode, APRV, Duo level (Bilevel) <p><u>Monitoring:</u></p> <ul style="list-style-type: none"> • Standard parameters • One Hour or more Built-in Battery Backup • TFT / LCD Monitor Size: 12” or more • Display Loops including Pressure-Volume, Flow-Volume, Flow Pressure, show up to 2 loops simultaneously. • Should operate on O2,Air/ or both • Alarms for Gas failure, RR, Pressure, Apnea, Volume, Low Battery • With built-in Turbine/compressor (03 Hrs or more backup UPS) • With Trolley. 	
31.	Laparoscope machine	<p>Gyneae and General Laparoscopy System</p> <p>High definition three chip (CCD) /CMOS Camera System</p> <ul style="list-style-type: none"> • Camera Console 220V with Universal Coupler. • Pure Digital Signal with high-definition video 2 Mega pixel or better (native resolution) • Progressive scan technology both on camera head and console • Brightness Control on Console and camera head • Digital Zoom (should have facility of digital zooming) and White Balance Control on Camera Head • Integrated Gain/Shutter / Enhancement with automatic brightness control <p>Video Output-</p> <ul style="list-style-type: none"> • Two DVI outputs <p>Automatic light source (From same manufacturer)</p> <ul style="list-style-type: none"> • 220volt, 300 watts. Xenon/LED Bulb (with one spare bulb) • Light Adjustment • Standby Mode • Universal Jaw Assembly branded <p>FIBER OPTIC CABLE</p> <ul style="list-style-type: none"> • 4.5 to 6.5mm x 240 cm or better Snap fit cable <p>MONITOR (from same manufacturer)</p> <ul style="list-style-type: none"> • Quantity: 2 • 27 inch or better medical grade LED Monitor (from same manufacturer and model must be mentioned) • High-Definition HD Resolution: 1920x1080 or better. • Brightness: 300 Cd/m2 or better. • Contrast Ratio: 2000:1 or better With 	A

- Brightness stabilization
- Back light sensor.
- Power saving mode & Accessories: AC power cord, Signal Cable.

INSUFFLATOR

- 40 Liter of high flow, Microprocessor controlled unit.
- Soft approach pressure control for safe recovery of abdominal pressure
- Gas heating
- LCD based central display monitor.
- Audio visual warning signals

Along with stainless steel Trolley (Locally export quality)

Along with compatible cautery / diathermy.

Adult Laparoscopic instruments for general surgery and Gynae

HD TELESCOPES, Fully autoclavable with working length 300 mm or better

- Wide angled distortion free view
- Universal adaptor for other light sources
- 0 degree, 10mm,
- 30 degree, 10mm,
- 0 degree, 5mm
- 30 degree , 5mm

Trocars (Long & Standard):

- 5 mm 03Nos each
- 10 mm 03Nos each

Scissor: As per working length

Grasping forceps 03 No

Grasping and dissecting forceps 02 No

L Hook electrode: 01 No

Universal Monopolar cable: 01 No

Insufflation's needle: 01 No

Suction/irrigation cannula 01 No

Clip applicator: 01 No

Needle Holder: 01 No

Uterus Manipulator 01 No

Knot Pusher: 01 No

Reducing sleeve 5mm to 10mm 02 No

Container system for instrument and telescope

Peads Laparoscopic instruments

HD TELESCOPES, Fully autoclavable with working length 300 mm or better

- Wide angled distortion free view
- Universal adaptor for other light sources
- 30 degree, 4mm,

		<ul style="list-style-type: none"> • 0 degree, 5mm • 30 degree, 5mm <p>Trocars (Long & Standard):</p> <ul style="list-style-type: none"> • 5 mm 02Nos each • 3.5mm to 4 mm 02 Nos each • 10 mm 01Nos each <p>Scissors for peads surgery (3.5-4mm)</p> <p>Grasping forceps (3.5-4mm) 03 No</p> <p>Grasping and dissecting forceps (3.5-4mm): 02 No</p> <p>L Hook electrode (3.5-4mm): 01 No</p> <p>Universal Monopolar cable: 01 No</p> <p>Insufflation's needle: 01 No</p> <p>Suction/irrigation cannula (3.5-4mm): 01 No</p> <p>Clip applicator: 01 No</p> <p>Needle Holder 01 No</p> <p>Uterus Manipulator: 01 No</p> <p>Knot Pusher: 01 No</p> <p>Reducing sleeve 5 mm to 10 mm 01 No</p> <p>Reducing sleeve 3.5 mm to 5 mm 01 No</p> <p>Container system for instrument and telescope</p> <p>Note: Prices must be quoted separately for</p> <ul style="list-style-type: none"> • Gynea and General Laparoscopy System • Adult Laparoscopic instruments for general surgery and Gynae • Peads Laparoscopic instruments 	
32.	Mobile C-Arm/ Image Intensifier (Fluoroscopy)	<p>Mobile C-Arm Image Intensifier with microprocessor controlled & High frequency, X-Ray Generator.</p> <ul style="list-style-type: none"> • Output Power : 2 KW or better • Radiography & Fluoroscopy KV : 40-110 KV or better with 0.4-100mAs or better • Technique selector switch for Fluoro & Rad. Mode Selection. • Anatomical Programmed should be provided in radiography mode. • Continuous Fluoroscopy: 5 mA or better • Boost mode mA range: 10mA • System should have ABC control. • System should have auto-Mode and Manual mode for user in fluoroscopy. • 9-inch Image Intensifier (brand model must be mentioned) N=9 inch, M1=6 inch, M2=4.5 inch • Digital CCD Camera with 1Kx1K lines • Stationary Anode Double Focus x-ray tube 40 KHU or better • Focal spot 0.6, 1.8 or less / single focal spot • 2 No's medical grade TFT monitors on trolley, Size: 19 inch or better. <p>DIGITAL IMAGE MEMORY SYSTEMS</p> <p>100 images Storage Memory with last image hold, Recursive filter, Negative image & contrast enhancement. Facility Store image in Pen drive</p> <ul style="list-style-type: none"> • Cassette holder tray for radiography 	A

		<p><u>C-Arm movement</u></p> <ul style="list-style-type: none"> • Orbital rotation should have 120° or better. • Rotation +180° • Horizontal travel 200mm or more • Motorized Vertical Up/Down 400 mm or more. • Wigwag + 12° or better <p>Power Requirement:</p> <ul style="list-style-type: none"> • 220VAC, 50Hz <p><u>Accessories for Protection:</u></p> <ul style="list-style-type: none"> • 3 Apron lead thickness 0.5mm • 2 Thyroid shield lead thickness 0.5mm <p>USP:</p> <ul style="list-style-type: none"> • Compatible online UPS for at least 20 minutes or more backup 	
33.	Mobile X-Ray plant 300 mA/125KV AC & Battery Operated	<p>Mobile X-ray machine battery operated, and motor driven by the battery system general purpose mobile x-ray unit for radiography.</p> <p><u>X-Ray Generator</u></p> <ul style="list-style-type: none"> • KV Range: 40kV to 125 kV in 01 kV Steps. • mA Range: Max. 300mA or better • mAs range: 1 mAs to 300mAs or better • 30KW or better • Preset anatomical programs (APR) available for different parts of body. • Number of exposures which can be done on fully charged battery should be greater than 80. <p><u>X-Ray Tube Unit</u></p> <ul style="list-style-type: none"> • Rotating anode: Single / Double focus • Focus Size: 0.7&1.3 mm or better on either side. • Anode heat storage capacity : 100 KHU or better <p>X-Ray Beam Limiting Device Projector Lamp: Halogen/LED</p> <ul style="list-style-type: none"> • Filtration: 1.2mm Aluminum or better. • Column adjustment facility available • Collimator rotation available • Independent battery system for exposure and movement • Transportation mode • Examination mode • Big wheel for easy movement • Brakes for control of movement • Input voltage 100-220VAC, 50Hz • Cassette Box: For Storage of at least 3 Cassettes • 2 No's lead Apron thickness 0.5mm 	A
34.	Nasopharyngoscope with suction	<p>Flexible Naso-pharyngo-laryngoscope for universal application, Immersible.</p> <ul style="list-style-type: none"> • Outer dia: 3.6mm or less • Working length: 300mm to 400mm, • Total Length: 545mm or better • Deflection up/down: 130°/130° 	A

		<ul style="list-style-type: none"> Depth of Focus: 5mm to 50 mm, Field of view: 75° -85° or better Complete with compatible light source and fiber optic cable. VIDEO SYSTEM <ul style="list-style-type: none"> HD Camera Head compatible with scope, image processor having capability of image storage and transfer in USB etc Medical Grade monitor having display size 21 inch or more should be mounted on trolley. Voltage source : 220 Vac 	
35.	Operating Microscope for ophthalmology	<ul style="list-style-type: none"> Inclinable binocular tube with converging optics Paired eye pieces 10xs/12.5 xs Adjustable / Continually motorized zoom. Motorized fine focusing with foot control. Objective f=175mm. LED illumination system with variable light intensity control. UV filter, cobalt blue, and green filters. Mobile floor stand with manual height adjustment through counter balanced arm. 	A
36.	Semi-Automated Chemistry Analyzer with UPS	<ul style="list-style-type: none"> Easy keypad operation with LCD Display / touch screen. Wavelengths range is 340-670nm (± 10nm) Supports flow cell and curette mode. Analytical models include kinetic, fixed time. Bi-chromatic end point with or without reagent blank or sample blank, linear or non-linear calibration curves. Up to 1000 test results can be stored. Excellent QC function, 02 controls per test. Specification: - <ul style="list-style-type: none"> Absorbance Range: 0.500-3.00 Abs. Resolution: 0.001 Abs (displayed) Light sources: Halogen lamp. Wavelengths: 340-670 (± 10nm) Wavelength Accuracy: ± 1nm to ± 3nm Band Width: < 8nm. Flow Cell: Metal – quartz flow cell. Temperature Control: 37° C, $\pm 0.1^\circ$C and ambient Output: Internal Printer. Interface: Rs-232 serial cable. Two extra Lamp. UPS: <ul style="list-style-type: none"> Branded and compatible UPS for at least 30 minutes backup. Input Voltage : 110-260v 50Hz, Output : 220v 50 Hz. <p>The bidder will provide kits for 100 patients along with the machine free of cost at the time of installation.</p>	A
37.	Sigmoidoscope with universal lighting	Features of Sigmoidoscope: Specifications and Qualifications: <ul style="list-style-type: none"> Angle of view field: 100° or more Diameter of Distal End: $\phi 13$mm or less 	A

		<ul style="list-style-type: none"> • Diameter of Insertion Tube: $\phi 12.8\text{mm}$ or less • Range of Tip Bending: 180°U, 180°D, 160°R, 160°L • Depth of View: 3-100mm or more • Diameter of Instrument Channel: $\phi 3.2\text{mm}$ or more • Working Length: 750mm to 950mm or better • Working distance: 56mm or more <p>Light Source:</p> <ul style="list-style-type: none"> • Along with compatible light source (Xenon/LED) power (from the same manufacturer). • Power voltage and frequency $\sim 220\text{V}/50\text{HZ}$ • Air pump: 0.03MPa = Pressure = 0.06Mpa; <p>Video System:</p> <ul style="list-style-type: none"> • HD Camera Head compatible with scope, image processor having capability of image storage and transfer in USB etc Medical Grade monitor having display size 21 inch or more should be mounted on trolley. 	
38.	Sinus Endoscopy set with proof puncture needles	<ul style="list-style-type: none"> • Flexible Sino scope for universal application also in pediatric, immersible • Outer Dia, 3.5mm. • WL400mm or better. • Total Length 650 mm. • Dia of Flexible Section 3.6 mm. • Deflection up/down $180^\circ/90^\circ$ • Depth of Focus 3-50 mm • Field of view 95° or better. • Instrument Channel 1.1 mm Dia. • With proof puncture needles. • With compatible light source (From same manufacturer) and fiber optic cable. <p>Video System</p> <ul style="list-style-type: none"> • HD Camera Head compatible with scope, image processor having capability of image storage and transfer in USB etc Medical Grade monitor having display size 21 inch or more should be mounted on trolley. 	A
39.	Slit Lamp	<ul style="list-style-type: none"> • Binocular Microscope. • Magnification Changer: 2 steps. • Total magnification range: $\times 10$ to $\times 16$ or better. • Papillary Adjustment: 50-80mm or better. • Diopter Adjustment: $\pm/-5\text{D}$ or better • Light source: LED <p><u>Slit illumination:</u></p> <ul style="list-style-type: none"> • Slit Width: 0-10 mm or more. • Aperture Diameter: 0, 3, 6, 5, 10 mm. • Slit Length: 0-10mm. • Slit Rotation: $\pm/-900$. 	A

		<p><u>Base movement as per manufacture design:</u></p> <ul style="list-style-type: none"> • Vertical Movement: • Longitudinal Movement • Lateral Movement • Fine Base Movement. <p><u>Chin rest:</u></p> <ul style="list-style-type: none"> • Vertical Movement • Local motorized table. 	
40.	Transport / Portable Ventilator for Ambulance:	<p>Transport / Portable Ventilator for Ambulance:</p> <ul style="list-style-type: none"> • Unit to be used for adult and child ventilation during Cardiopulmonary resuscitation and for ventilation during transpiration, when necessary. • Display size 8 inches TFT touch screen or more • To have frequency control 1 to 100 bpm, • Tidal volume control 20-2000ml • Inhalation pressures monitor 5 to 80 cm H2O. • Oxygen control 21 to 100%. • Ventilation Modes: V-A/C, P-A/C, V-SIMV, P-SIMV, CPAP, PSV, Apnea, NIV (Non-invasive ventilation) • PEEP facility 1 to 30 cmH2O or better. • I:E Ratio: 4:1 - 1:10 or better <p><u>Monitoring:</u></p> <ul style="list-style-type: none"> • FiO2, MV, MVspn, MVleak, TVi, TVe, TVe spn, Ppeak, Pplat, Pmean, PEEP, ftotal, fmand, fspn, R,C • Alarm settings: Tidal Volume, Minute Volume, Air pressure, Frequency, FiO2, Apnea alarm time 5-60s • Patient circuit silicon Adult and paed's type autoclavable. • With built in battery Backup of 4 hours or more • Input Voltage: 220V, 50 Hz AC /12V DC , • Test Lung Adult/Peads. • With turbine (Built-in) 	A
41.	Ultrasound machine (General purpose) within built trolley mounted	<p>Heavy duty U/S machine (inbuilt trolley mounted) with</p> <ul style="list-style-type: none"> • Imaging Mode: B,B/B,B/M,M • Gray Scale: 256 or better • Display: 15" TFT or better • Scanning Depth: From 20 To 248 mm or better on either side • Pre-Processing: Signal Processing, Dynamic Range, Frame Correlation, Line Correlation, • Image Enhancement, Scanning Angle Selection, Harmonic Imaging) • Post-Processing Gray Map Y- Correction, Rejection Left-Right • Reverse, Up-Down Reverse • Hard Disk: 500 GB or better • Cine Loop: 256 Frame or better Cine loop Memory In • B/B, M and B/M Mode. • Zoom: Pan Zoom in Real-Time & Frozen Condition • Measurement & Calculation: • B-Mode: Distance, Circumference, Area, Volume, Angle, Ratio. 	A

		<ul style="list-style-type: none"> • Built-In Imaging Archive“ Storage : Over 100,000 still Images” Histogram, Profile, • M-Mode, Distance, Time, Velocity, Heart Rate (2 Cycles) • Software Packages. • Abdomen, Urology, Gynecology, Obstetrics, Cardiology, Vascular, Small Parts, Orthopedics. • Power Supply: 220 VAC, 50Hz • Standard Configurations: <p>Main Unit</p> <ul style="list-style-type: none"> • 3 active Probe Connector. • Tissue Harmonic Imaging. • 256-Frame Cine Loop In B, B/B,M& B/M Mood • USB Ports minimum 2 and CD-RW. • Measurement and Calculation Software Packages • Electronic Convex Array Transducer. (Model must be mentioned).2.5/3.5/5.0 MHz. • Electronic Linear Array Transducer: (Model must be mentioned) 5.0/7.5/10 MHz. • Thermal Printer (Branded, model and make must be mentioned) • 50 Roles Thermal Paper. • With built in UPS system for minimum 1 hour backup. • Ultrasound Gel 20Ltr • With built in mounted trolley. • Note: TVS probe price should quoted separately (optional) 	
42.	X-Ray Plant 300mA in built or external AVR and UPS	<p><u>FREQUENCY X-RAY MACHINE 300 MA (RADIOGRAPHY ONLY)</u> <u>with Inbuilt or external AVR and UPS, in case of external AVR the model /brand /make of the main x ray unit and each quoted component must be mentioned.</u></p> <ul style="list-style-type: none"> • The AVR must be able to control the voltage between 100VAC to 260VAC, to provide constant output voltage of 220VAC 50Hz. • 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 supplier must be provided). • AVR and UPS maximum power, brand model must be mentioned. • With over and under current, voltage and heat protection. <p><u>X-RAY unit Comprising of following: -</u></p> <ul style="list-style-type: none"> • High Frequency X-Ray Generator 300 mA /125 KV / 25 KW or better. • With inbuilt /external AVR and UPS system minimum 70 to 100 exposures or better. • 4 Way Floating top Bucky table Floor to ceiling or free-standing Tube stand. <p>X-ray tube head with;</p> <ul style="list-style-type: none"> • Focal spot Size 0.6 x 1.2 mm or better on either side • 140KHU or more. 	A

		<ul style="list-style-type: none"> • Manual Collimator. • Pair of H.T cable • Bucky wall stand. <p><u>X-RAY GENERATOR RAD TYPE, 01 TUBE SYSTEM</u></p> <ul style="list-style-type: none"> • Microprocessor controlled High frequency. • Power: 25 kW or better. • kV Range: 40 - 125kV • mA Range: 10 -300mA • Minimum exposure time: 1 milli second • Exposure time range: 1 ms – 4 sec or more • mAs Range: 02 - 300 mAs or more • Anatomical Programming: 40 or more. • Digital display of parameters. • Hand Switch for Radiography. <p>With control console.</p> <ul style="list-style-type: none"> • Pedestal for control console. • Automatic main line compensation. • Input voltage: 220VAC, 50Hz. <p><u>ROTATING ANODE, DOUBLE FOCUS X-RAY TUBE(model must be mentioned)</u></p> <ul style="list-style-type: none"> • Small Focus: 0.6 x 0.6 mm or better. • Large Focus: 1.2 x 1.2 mm or better. • Tube voltage: 125kV. • Anode heat storage capacity: 140 KHU or more. <p><u>FOUR WAY FLOATING TOP BUCKY TABLE (model must be mentioned)</u></p> <ul style="list-style-type: none"> • Four-way floating top. • Oscillating Grid. • Cassette Tray to accommodate cassettes up to 14x17inch. • Electromagnetic Brakes. • Grid ratio 8:1 <p><u>COLUMNSTAND WITH MANUALCOLLIMATOR(model must be mentioned)</u></p> <ul style="list-style-type: none"> • Column stands with electromagnetic brakes for movement control. • Manual Collimator • Colum stand console with handle having facility of tube rotation(vertical axis),Vertical movement and horizontal movement. <p><u>HIGH TENSION CABLES:-</u></p> <ul style="list-style-type: none"> • Pair of High-Tension Cables, each 12 m or more long <p><u>WALL BUCKY STAND(model must be mentioned)</u></p> <ul style="list-style-type: none"> • Vertical Travel, up and down with balancing system & Electromagnetic Brakes • Oscillating Grid • Cassette Tray to accommodate cassettes up to 14x17 inch. • Grid ratio 8:1. 	
43.	X-Ray Plant	<u>HIGH FREQUENCY X-RAY MACHINE 500 MA (RADIOGRAPHY</u>	A

	<p>500mA with inbuilt or external AVR and UPS.</p>	<p><u>ONLY) with Inbuilt or external AVR and UPS, in case of external AVR the model /brand /make of the main x ray unit and each quoted component must be mentioned.</u></p> <ul style="list-style-type: none"> • The AVR must be able to control the voltage between 100V to 260V & to provide constant output voltage of 220V,50Hz. • 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 supplier must be provided). • AVR and UPS maximum power, brand and model must be mentioned. • With over and under current, voltage and heat protection <p><u>X-RAY unit Comprising of following: -</u></p> <ul style="list-style-type: none"> • High Frequency X-Ray Generator 500mA /150 KV / 32 KW or better. • With inbuilt /external AVR and UPS system minimum 70 to 100 exposures or better. • 4 Way Floating top Bucky table Floor to ceiling or free-standing Tube stand. <p>X-ray tube head with;</p> <ul style="list-style-type: none"> • Focal spot Size 0.6 x 1.2 mm or better on either side • 300 KHU or more. • Manual Collimator. • Pair of H.T cable • Bucky wall stand. <p><u>X-RAY GENERATOR RAD TYPE, 01 TUBE SYSTEM</u></p> <ul style="list-style-type: none"> • Microprocessor controlled High frequency. • Power: 32 kW or better. • kV Range: 40 - 150kV • mA Range: 10 -500mA • Minimum exposure time: 1 milli second or less • Exposure time range: 1ms – 8.0 sec or more • mAs Range: 02 - 500mAs or more • Anatomical Programming: 100 or more. • Digital display of parameters. • Hand Switch for Radiography. • With control console. • Pedestal/wall mounted control console. • Automatic main line compensation. • Input voltage: 220V, 50Hz. <p><u>ROTATING ANODE, DOUBLE FOCUS X-RAY TUBE (model must be mentioned)</u></p> <ul style="list-style-type: none"> • Small Focus: 0.6 x 0.6 mm or Less. • Large Focus: 1.2 x 1.2 mm or Less. • Tube voltage: 150kV. • Anode heat storage capacity: 300 KHU or more. <p><u>FOUR WAY FLOATING TOP BUCKY TABLE (model must be mentioned)</u></p>	
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		<ul style="list-style-type: none"> • Four-way floating top. • Oscillating Grid Ratio 8:1 • Cassette Tray to accommodate cassettes up to 14x17inch. • Electromagnetic Brakes. • Grid ratio 8:1 <p><u>COLUMNSTAND WITH MANUAL COLLIMATOR (model must be mentioned)</u></p> <ul style="list-style-type: none"> • Column stands with electromagnetic brakes for movement control. • Manual Collimator <p><u>HIGH TENSION CABLES: -</u></p> <ul style="list-style-type: none"> • Pair of High-Tension Cables, each 12 m or more long <p><u>WALL BUCKY STAND (model must be mentioned)</u></p> <ul style="list-style-type: none"> • Vertical Travel, up and down with balancing system & Electromagnetic Brakes • Oscillating Grid Ratio 8:1 • Cassette Tray to accommodate cassettes up to 14x17 inch 	
44.	X Ray Plant 500mA (3-Phase)	<p>HIGH FREQUENCY X-RAY MACHINE 500 MA (RADIOGRAPHY ONLY)</p> <ul style="list-style-type: none"> • Input power: 3ϕ, 380 - 440v, 50 Hz, <p>X-RAY unit Comprising of following.</p> <ul style="list-style-type: none"> • High Frequency X-Ray Generator 500mA /150 KV / 40 KW or better. • 4 Way Floating top Bucky table Floor to ceiling or free-standing Tube stand. <p><u>X-ray tube head with;</u></p> <ul style="list-style-type: none"> • Focal spot Size 0.6 x 1.2 mm or better on either side • 300 KHU or more. • Manual Collimator. • Pair of H.T cable • Bucky wall stand. <p><u>X-RAY GENERATOR RAD TYPE, 01 TUBE SYSTEM</u></p> <ul style="list-style-type: none"> • Microprocessor controlled High frequency. • Power: 40 kW or better. • kV Range: 40 - 150kV • mA Range: 10 -500mA • Minimum exposure time: 1 milli second or less • Exposure time range: 1ms – 8.0 sec or more • mAs Range: 02 - 500mAs or more • Anatomical Programming: 100 or more. • Digital display of parameters. • Hand Switch for Radiography. • With control console. • Pedestal/wall mounted control console. • Automatic main line compensation. <p><u>ROTATING ANODE, DOUBLE FOCUS XRAY TUBE (model must be mentioned)</u></p> <ul style="list-style-type: none"> • Small Focus: 0.6 x 0.6 mm or Less. • Large Focus: 1.2 x 1.2 mm or Less. 	A

		<ul style="list-style-type: none"> • Tube voltage: 150kV. • Anode heat storage capacity: 300 KHU or more. <p><u>FOUR WAY FLOATING TOP BUCKY TABLE (model must be mentioned)</u></p> <ul style="list-style-type: none"> • Four-way floating top. • Oscillating Grid Ratio 8:1 or better • Cassette Tray to accommodate cassettes up to 14x17inch. • Electromagnetic Brakes. • Grid ratio 8:1 or better <p><u>COLUMNSTAND WITH MANUALCOLLIMATOR (model must be mentioned)</u></p> <ul style="list-style-type: none"> • Column stands with electromagnetic brakes for movement control. • Manual Collimator <p><u>HIGH TENSION CABLES:</u></p> <ul style="list-style-type: none"> • Pair of High-Tension Cables, each 12 m or more long <p><u>WALL BUCKY STAND (model must be mentioned)</u></p> <ul style="list-style-type: none"> • Vertical Travel, up and down with balancing system & Electromagnetic Brakes • Oscillating Grid Ratio 8:1 or better • Cassette Tray to accommodate cassettes up to 14x17 inch 	
45.	Yag Laser	<ul style="list-style-type: none"> • Laser Wave Length: 1064nm • Mode: Super Gaussion/Q switch • Optical Break Down: 2.5mJ or better in air • Pulse Duration: <4.5ns • Maximum Laser Energy: Single Pulse, 10mJ Double Pulse, 23mJ Triple Pulse, 32mJ or more • Energy Levels: 20 Steps or more • Frequency: Max 2Hz • Focus Diameter: 10um • Angle of exit aperture: 15° to 18° • Aiming Beam: 630nm – 680nm • Focus Shift Variable: +150um, 0, -150 um. • Input Voltage: 220V, 50Hz • Magnification: 5,8,12,20,32x through Galilean changer with 10x eyepiece and tube= 130mm or more • Tube: Parallel Tube f=130 or more with 50-78mm PD adjustment with convergent tube • Eye Pieces: 10X high eyepoint eyepieces with +/- 8D • Slit Adjustment: Width 0-14mm or more. • Isolation Transformer: Machine should have isolation transformer for safe handling. • Stand: Motorized, Local made <p>Along with following lenses:</p>	A

		1. Capsulotomy Lens (Compatible with Machine) 2. Irredectomy Lens (Compatible with Machine) 3. Gonio Lens (Compatible with Machine)	
46.	24 Hour BP Monitoring machine	<ul style="list-style-type: none"> The system should have. <ol style="list-style-type: none"> Solid State light weight 1 No's Digital Recorders Two Cuffs Artifact subtraction With USB port / Flash card port Analyzer with Auto analysis Facility. Complete with software. Compatible with PC to get analysis on printer. <p><u>Branded CPU and Monitor (Model and Make must be mentioned):</u></p> <ul style="list-style-type: none"> Intel Core i5 or better, Processor 3.20GHz 4GB RAM 1TB internal Hard Disk DVD R/W With Keyboard and Mouse LCD Monitor Size: 17 Inch or more <p>Price to be quoted separately for system and device supplied.</p>	B
47.	Air Drill with Cylinder/Orthopedic pneumatic drill with cylinders.	<ul style="list-style-type: none"> Modular Hand Piece 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 Progressive Trigger Action Cannulations 4 to 5mm Chuck with Key Attachment ¼ Jacobs Chuck Size ¼ (4 to 6.35mm) Fully Cannulated to 4 to 5.1mm Maximum Speed 900 to 1250 rpm or better Attachment 4.00 mm Jacob Chuck Size 5/32 (4.0mm) Fully Cannulated Quick Coupling Chuck AO Small attachment Stainless Steel Cannulations 2 to 3.5mm AO Large attachment Stainless Steel Cannulations 2 to 3.5mm Hudson Reaming Adaptor 5:1 Hudson Reamer Attachment Stainless Steel 4.0 mm or better Cannulations 5:1 Large AO Reamer Attachment Stainless Steel 4.0 mm or better Cannulations 5:1 Reamer attachment <p>Wire Driver</p> <ul style="list-style-type: none"> Wire Driver Attachment Cannulations.8 to 4 mm diameter Maximum Speed 900 to 12500 rpm or better 	B

		<p>Pin Driver</p> <ul style="list-style-type: none"> • Pin driver attachment • Maximum Speed 1250 rpm or better • Pneumatic Oscillating Saw • Operate-able in different positions. • Speed Variable 0-14000 rpm or better • Blade Oscillation Arc 4degree • Saw Blade for Oscillating • St OscilBlade 13.5 x 64 x.6mm, Box of 5 • St OscilBlade 71mm x 19.5mm x1.2, Box of 5 • St OscilBlade 71mm x 33mm x1.2mm, Box of 5 • St OscilBlade 71mm x 19.5mm x 8mm, Box of 5 • Leg Bone Osc Blade 12.5x73.8 x 63,1.06mm, Box of 5 • St OscilBlade 19.5mm x 86mm x 0.8mm, Box of 5 • St OscilBlade 8.5mm x 38mm x 0.4mm, Box of 5 • St OscilBlade 25.4 x 90 x 1.27mm sterile, Box of 5 • Leg Bone Osc Blade 9.5 x 30 x 0.64, 0.84mm, Box of 5 • Universal House,10" • Nitrogen Regulator Single Connection • Pressure Sentinel I/M Reamers for Hand and Power • Can be operated at forward and reverse mode. • Size 6mm to19mm • Individual complete reversible with tip and solid shaft • T-handle for hand reaming • Sterilization container • Complete with Air hose connector, cylinder (Full Size) and pressure regulator. 	
48.	Arterial Blood Gas Analyzer with UPS	<p>Microprocessor based system.</p> <ul style="list-style-type: none"> • Control panel with easy setting and monitoring • Easy 2-point calibration • Calibration history at least 24 hours • Easy changing access to the Electrodes and the solutions • Automatic sample recognition and sampling • Sampling techniques – whole blood <p>Sampling volume –</p> <ul style="list-style-type: none"> • syringe– less than 100 micro lit • capillary– less than 70 micro lit • Micro sample mode – less than 40 micro lit. • Analysis time – shall be less than 60secs . <p>Measurement ranges</p> <ul style="list-style-type: none"> • Measured parameters • PH –6.0-8.0 or better • H+ 10.0-500.0mmol/l or better • pO2 0.0-800.0mmHg or better • pCO2– 5.0-250.0 mmHg or better • Barometric pressure – 400.00-800.0mmHg <p>Calculated parameters</p>	

		<ul style="list-style-type: none"> • HCO3 act – 0.0-60.0mmol/L • HCO3 std– 0.0-60.0mmol/L • BE vv+/-30mmol/L • tCO2– 0.0-60.0mmol/L • O2 sat– 0.0-100.0% • O2 –0.0-40.0% <p>Entered parameters</p> <ul style="list-style-type: none"> • Temperature – 10° to45°C • Temperature corrected parameters • pH(T)6.0-8.0 • H+ (T) 10.0-500.0mmol/L • pO2 (T) 0.0-800.0mmHg • pCO2 (T)BE vt5.0-250.0 mmHg <p>Power Requirement</p> <ul style="list-style-type: none"> • Operate at 220 VAC +/-10% <p>Accessories</p> <ul style="list-style-type: none"> • Include all standard accessories. • Include reagent for immediate start up and for 500 tests as recommended by manufacturer <p>UPS:</p> <ul style="list-style-type: none"> • Branded and compatible UPS for at least 30 minutes backup. • Input Voltage : 110-260v 50Hz, Output : 220v 50 Hz. 	
49.	Autoclave Automatic 100 Liters	<ul style="list-style-type: none"> • Minimum 8 or more sterilization cycles (Vacuumization, Heating, Sterilization, Exhaust and Drying), For (a) wrapped as well as unwrapped instruments, (b) flash sterilization, open, packed. • 5 inch or more display. • Single door, high pressure, high vacuum autoclave for sterilizing hospital, materials. • The closing, locking, and opening of the door should be automatic having motorized button-controlled door without any lever. • With Printer • Electrically operated with inbuilt electric steam generator • System should be operated with a high vacuum pump. • Chamber should be made of stainless steel or better material. • Water level indicator • Internal Chamber Capacity: 100 liters or more • Sterilization Temperature Range: 121°C to 134°C or more • Maximum Chamber pressure: 2 bar or more • Chamber Temperature and pressure gauges/display • Cycles run countdown function. • Autoclave should be properly equipped with door safety locks & safety valves for chamber. • With integral alarm system when temperature set-points are exceeded or fallen below. • With Pressure safety valve, over-temperature limiter, over pressure limiter • Low water protection with audio visual indicator 	B

		<ul style="list-style-type: none"> Autoclave should execute Vacuum test, Bowie & Dick test or more. Should be supplied with compatible plant, with imported parts. Accessories: Basket 02 Nos Trays 10 Nos <p>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.</p>	
50.	Autoclave Automatic 150 Liters	<ul style="list-style-type: none"> Minimum 8 or more sterilization cycles (Vacuumization, Heating, Sterilization, Exhaust and Drying), For (a) wrapped as well as unwrapped instruments, (b) flash sterilization, open, packed. 5 inch or more display. Single door, high pressure, high vacuum autoclave for sterilizing hospital, materials. The closing, locking and opening of the door should be automatic having motorized button-controlled door, without any lever. With Printer Electrically operated with inbuilt electric steam generator System should be operated with a high vacuum pump. Chamber should be made of stainless steel or better material. Water level indicator Internal Chamber Capacity: 150 liters or more Sterilization Temperature Range: 121°C to 134°C or more Maximum Chamber pressure: 2 bar or more Chamber Temperature and pressure gauges/display Cycles run countdown function. Autoclave should be properly equipped with door safety locks & safety valves for chamber. With integral alarm system when temperature set-points are exceeded or fallen below. With Pressure safety valve, over-temperature limiter, over pressure limiter Low water protection with audio visual indicator Autoclave should execute Vacuum test, Bowie & Dick test or more. Should be supplied with compatible RO plant, with imported parts. Accessories: Basket 02 Nos Trays 10 Nos <p>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.</p>	B
51.	Autoclave Automatic 200 Liters	<ul style="list-style-type: none"> Minimum 8 or more sterilization cycles (Vacuumization, Heating, Sterilization, Exhaust and Drying), For (a) wrapped as well as unwrapped instruments, (b) flash sterilization, open, packed. 	B

		<ul style="list-style-type: none"> • 5 inch or more display. • Single door, high pressure, high vacuum autoclave for sterilizing hospital, materials. • The closing, locking and opening of the door should be automatic having motorized button-controlled door, without any lever. • With Printer • Electrically operated with inbuilt electric steam generator • System should be operated with a high vacuum pump. • Chamber should be made of stainless steel or better material. • Water level indicator • Internal Chamber Capacity: 200 liters or more • Sterilization Temperature Range: 121°C to 134°C or more • Maximum Chamber pressure: 2 bars or more • Chamber Temperature and pressure gauges/display • Cycles run countdown function. • Autoclave should be properly equipped with door safety locks & safety valves for chamber. • With integral alarm system when temperature set-points are exceeded or fallen below. • With Pressure safety valve, over-temperature limiter, over pressure limiter • Low water protection with audio visual indicator • Autoclave should execute Vacuum test, Bowie & Dick test or More. • Should be supplied with compatible RO plant of, with imported parts. • Accessories: Basket 02 Nos Trays 10 Nos <p>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.</p>	
52.	Autoclave Automatic 100 Liters Sliding door	<ul style="list-style-type: none"> • Minimum 8 or more sterilization cycles (Vacuumization, Heating, Sterilization, Exhaust and Drying), For (a) wrapped as well as unwrapped instruments, (b) flash sterilization, open, packed. • Single door, high pressure, high vacuum autoclave for sterilizing hospital, materials. • Having fully automated Sliding door. • With Printer • Electrically operated with inbuilt electric steam generator • System should be operated with a high vacuum pump. • Chamber should be made of stainless steel or better material. • 5 inches or more touch screen showing working process parameters, easy control and operation. • Water level indicator • Internal Chamber Capacity: 100 liters or more • Sterilization Temperature Range: 121°C to 134°C or more • Maximum Chamber pressure: 2 bar or more 	B

		<ul style="list-style-type: none"> • Chamber Temperature and pressure gauges/display • Cycles run countdown function. • Autoclave should be properly equipped with door safety locks & safety valves for chamber. • With integral alarm system when temperature set-points are exceeded or fallen below. • With Pressure safety valve, over-temperature limiter, over pressure limiter • Low water protection with audio visual indicator • Autoclave should execute Vacuum test, Bowie & Dick test or more. • Should be supplied with compatible plant, with imported parts. • Accessories: Basket 02 Nos Trays 10 Nos <p>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.</p>	
53.	Autoclave Automatic 150 Liters Sliding door	<ul style="list-style-type: none"> • Minimum 8 or more sterilization cycles (Vacuumization, Heating, Sterilization, Exhaust and Drying), For (a) wrapped as well as unwrapped instruments, (b) flash sterilization, open, packed. • Single door, high pressure, high vacuum autoclave for sterilizing hospital, materials. • Having fully automated Sliding door. • With Printer • Electrically operated with inbuilt electric steam generator • System should be operated with a high vacuum pump. • Chamber should be made of stainless steel or better material. • 5 inches or more touch screen showing working process parameters, easy control and operation. • Water level indicator • Internal Chamber Capacity: 150 liters or more • Sterilization Temperature Range: 121°C to 134°C or more • Maximum Chamber pressure: 2 bar or more • Chamber Temperature and pressure gauges/display • Cycles run countdown function. • Autoclave should be properly equipped with door safety locks & safety valves for chamber. • With integral alarm system when temperature set-points are exceeded or fallen below. • With Pressure safety valve, over-temperature limiter, over pressure limiter • Low water protection with audio visual indicator • Autoclave should execute Vacuum test, Bowie & Dick test or more • Should be supplied with compatible RO plant, with imported parts. • Accessories: 	B

		<p>Basket 02 Nos Trays 10 Nos</p> <p>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.</p>	
54.	Autoclave Automatic 200 Liters Sliding door	<ul style="list-style-type: none"> • Minimum 8 or more sterilization cycles (Vacuumization, Heating, Sterilization, Exhaust and Drying), For (a) wrapped as well as unwrapped instruments, (b) flash sterilization, open, packed. • Single door, high pressure, high vacuum autoclave for sterilizing hospital, materials. • Having fully automated Sliding door. • With Printer • Electrically operated with inbuilt electric steam generator • System should be operated with a high vacuum pump. • Chamber should be made of stainless steel or better material. • 5 inches or more touch screen showing working process parameters, easy control and operation. • Water level indicator • Internal Chamber Capacity: 200 liters or more • Sterilization Temperature Range: 121°C to 134°C or more • Maximum Chamber pressure: 2 bars or more • Chamber Temperature and pressure gauges/display • Cycles run countdown function. • Autoclave should be properly equipped with door safety locks & safety valves for chamber. • With integral alarm system when temperature set-points are exceeded or fallen below. • With Pressure safety valve, over-temperature limiter, over pressure limiter • Low water protection with audio visual indicator • Autoclave should execute Vacuum test, Bowie & Dick test or more • Should be supplied with compatible RO plant of, with imported parts. • Accessories: Basket 02 Nos Trays 10 Nos <p>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.</p>	B
55.	Automated Electrolyte Machine with UPS	<p>System consisting of :</p> <ul style="list-style-type: none"> • Electrolyte analyzer for Na, k, Ca, Cl, Li, Ph • For whole blood, plasma, serum, urine • Sample volume: - blood / plasma / serum minimum 25 to 200uL • Urine (diluted) 50-250 micro liters • Digital display • Stat facility • Auto sampler 	

		<ul style="list-style-type: none"> • Self-diagnostics programmed; system monitoring and maintenance modes • Patient results storage: 120 samples or better QC data storage : 20 or better • Integral printer • Calibration: Automatic • Calibrators, controls, reagents, consumables for startup. <p>UPS:</p> <ul style="list-style-type: none"> • Branded and compatible UPS for at least 30 minutes backup. • Input Voltage : 110-260v 50Hz, Output : 220v 50 Hz. 	
56.	Automated ESR Analyzer	<p>Microprocessor controlled fully automated ESR analyzer with the following specifications:</p> <ul style="list-style-type: none"> • Operation: Automated / Manual • LCD screen • Internal thermal printer • Easy operator software, Calibration & Controls • Results time: 30 seconds or less • Result / Hour: 100 samples/hour or better • EDTA blood sample volume: 180 µl or less with automated withdrawal per test and 100 µl or less with manual withdrawal per test. <p>Simple position: 15 or better</p>	B
57.	Automatic Blood Bag Shaker	<ul style="list-style-type: none"> • Microprocessor controlled. • Digital display: For speed and time • Digital speed control 5 to 100 RPM or better • Tilting angle adjustment: 7° to 13° • Timer range: 1 min to 99 hours. • Min. Blood bags: 2 bags 	B
58.	Automatic Film Processor	<ul style="list-style-type: none"> • Film: 60 Films per Hour or more • Minimum Film Size: 4 x 4 inch • Maximum Film Size: 14 x 17 inch • Electrical Requirements: 220VAC, 50 Hz 	B
59.	Baby Incubator	<ul style="list-style-type: none"> • Microprocessor controlled. • Incubator to have a large double Plexiglas hood with excellent dual viewing panels mobile on lockable castors. • Temperature range: 34 to 37-degree C. • To have an integrated sensor module to collect air and skin temperatures Spo2, oxygen, humidity and pass this information to the display. • 7 inch or more LCD/TFT screen should be available to display relevant information. • The sensor module to have a visual alarm facility to complement the audible alarm. • The mattress base to be contoured, x-ray translucent. • To be able to tilt ± 12 degrees or more. • Trend data for 48 hours or more. • The hood to have four doors, two on either side'. Openings with 4 tubing access ports. • The unit to have the temperature, oxygen level and humidity to 	B

		<p>preset levels.</p> <ul style="list-style-type: none"> • To have an alarm for all these parameters with a low initial alarm intensity to avoid undue disturbance. • Oxygen to be able to be calibrated from 21% to 100%, • The humidity module to be front loading and to need filling daily. • The mattress base tilts control to be knobs on the base. • Noise should be ≤ 45dbi. <p>Accessories: Telescopic IV stand. Monitoring shelf, Cylinder holder Ventilator tube support. Spo2 sensor for neonatal</p>	
60.	Baby Suction Machine	<ul style="list-style-type: none"> • Performance : suction controlled 0-650mmHg (Adjustable) • Capacity : 30l/min or more • Controls : On/Off switch • Safety : positive pressure restricted • With filter. • Complete with autoclave able receiver jar 2x2000 ml or more(Autoclavable) • Suction tip: 1 No • Suction pipe length 2m, with hose. • Mobile on four antistatic castors • With the over flow safety 	B
61.	Binocular Microscope	<p><u>Standard Microscope Consisting of:-</u></p> <ul style="list-style-type: none"> • Binocular Head Adjustable Inter Papillary Distance • Rotating Quadruple Nose Piece • Adjustable stage with vernier Scale And spring clip for slides • Coaxial Controls • Condenser carrier, vertically adjustable • Bright field condenser, NA ,1.25,FlipTop • Light adjustment for condenser • Aperture Iris Diaphragm • Halogen /LED illumination Eye Piece • Lenses:- X10 20mm wide field, focusable • Objective Lenses:- X4 Plain Achromatic X10 Plain Achromatic N.A0.25 X40 Plain Achromatic N.A0.65 X100 Plain Achromatic N.A1.25, • Oil Immersion With following accessories:- Blue iris aperture Oiler Dust cover 	B
62.	BIPAP	<ul style="list-style-type: none"> • Device should have CPAP, BILEVEL S, BILEVEL T, B BILEVEL ST modes. 	B

		<ul style="list-style-type: none"> • Device should have three different user menus – an Information menu, a patient menu for adjusting the comfort functions and a clinical menu for the optimal customization of all the therapy parameters. • Once the patient stops breathing the device should automatically switches into the T-mode and provides respiration for the patient in the prescribed safety frequency. • The extreme low respiration resistance, the high-power reserves and the automatic compensation for leakages. • The device should have Alarm indicators. • High maximum pressure 25 hPa. • Average noise level should be less than 30dB. • With humidifier. • Advanced data management with SD card. • Simple handling. • Easy to replace filter. 	
63.	Blood Bag Tube Sealer	<ul style="list-style-type: none"> • The system should be heavy duty and be able to seal the blood bag tubing quickly and effectively. • Should be simple to handle. • System should gently seal the tubing with no hemolysis using radio frequency. • Should be capable of making wide seal of 2 mm thickness. • The sealing time should not be more than 2 seconds. • Sealing trigger should be automatic. • Should have indication lamps for Sealing Process. • No warm-up time should be required. • Should ensure easy separation of tube segments after the sealing. <p>Power input 220-240V/ 50 Hz AC</p>	B
64.	Blood Bank Refrigerator	<ul style="list-style-type: none"> • Cabinet to have smooth stainless-steel interior. • Outer door to stay open for ease of access and to have assisted closing with magnetic gasket. • With transparent inner door. • With two or more shelves. • With lockable door. • With interior lighting. • LCD/Digital display for temperature and warning / error messages. • Temperature range: 2 to 8 ±1 degree C • To have seven days chart recorder. • Alarm for warning and error messages. • USB port with frontal access for data transfer. • Minimum Capacity: 120x 450 to 500cc bag or better. • With Servo controlled stabilizer. 	B
65.	Centrifuge (Bench Top)	<p>Microprocessor controlled centrifuge machine with the following specifications.</p> <ul style="list-style-type: none"> • Angle Rotor Maximum Speed 3500rpm or better. • Timing Up To 99 Minute, Continuous. 	B

		<ul style="list-style-type: none"> • Programmable by Keypad; 10 Program storage. • Digital Display of Program Speed, Timing, Braking. • Lid Safety Interlock. • Angle Rotor, Maximum Capacity 12 X 15ml or better. 	
66.	Cervical and Lumbar Traction Table	<p>Traction Unit:</p> <ul style="list-style-type: none"> • Traction: Static, intermittent, cyclic traction/Harmonic • Traction force 15-900 N/1.5-90kg/ 3.4-202 Lbs • User defined Hold, Rest and treatment times. • Traction Period: 1 to 59 minutes with increment of 1 minute. • Store up to 10 users defined protocols • Voltage supply: 100-240 v, 50Hz <p>Accessories:</p> <ul style="list-style-type: none"> • With Mobile Traction Stand /inbuilt • Fully adjustable • Allows the Traction unit to be used with most tables • With Cervical Traction • With Lumbar Traction <p>Table (Electrically Operated Table):</p> <ul style="list-style-type: none"> • Compatible with the traction unit/built-in with traction unit • Three or more section Table. • Easy access foot switch for height adjustment • Size Tabletop: 200 x 70 cm or more • Height adjacent 55-87cm or more • Lifting capacity not less than 150 kg • Power supply: 120-230v 	B
67.	CPAP	<ul style="list-style-type: none"> • The Device should have 3 levels separately for in- and expiration. • The Device should provide a continuous positive pressure. In addition, CPAP mode provides an individual respiration flow proportionable pressure adjustment during the inspiration and the pressure drops during the expiration. • The device should have alarm system. • Pressure Range: 4 – 20 hPa (mbar). • Average noise level should be less than 30 dB. • Advanced data management with SD card. • Should have stand-by time, turbine running time, therapy time, filter age counters. • Simple handling. • Easy to replace filter 	B
68.	CPR Machine	<ul style="list-style-type: none"> • Unit should be capable to perform continuous compressions. • Equipment should be pneumatic type. • Adjustable chest compressions 100 per minute or more • Adjustable chest compression depth from 0 to 3.2 inches or better • Modifiable Compressions rate from 50:50 systolic to diastolic ratio (50% compression length). 	B
69.	CTG Machine	<ul style="list-style-type: none"> • With 7-inch LCD display or more. • Fetus heart rate: 50-240 bpm or better • Manual/auto recording Fetus movement. • Sound and color alarm for high and low fetal heart rate 	B

		<ul style="list-style-type: none"> • Continuous 3-4 hrs. real time monitoring function, • Single, twins monitoring. • High resolution built in thermal recorder. • Built in communication port, for connecting to the central monitoring system. • Voltage AC220V, 50Hz. • Output speed: 1 cm/min, 2cm/min, 3 cm/min. • Ultrasound Probe : • Nominal frequency: 2.0MHz or better • Work frequency: 1.0MHz+- 10%. • Compatible with Two Probe (for twins). • Complete with all accessories. • Built in rechargeable battery backup: 3 hour or better 	
70.	Defibrillator	<ul style="list-style-type: none"> • Semi-automatic 200 joules or better biphasic defibrillator with monitor and AED mode. • Synchronized output with ECG. • Control of energy charging/ delivering on main panel and paddle. • The energy range should be adjustable for Peads and adults up to 200Joules. • Charging Time for full energy will be less than 08 sec. • Screen Size of approx. 5.7 inch or better colored. • Display of Heart Rate: 30 to 300 bpm • ECG through Pads / paddles and 3 Lead ECG patient cable with arrhythmia detection • Built in recorder for printing of full summery on standard paper including waveforms, Frozen Waveforms, Event Summary, Tabular Trends, User test, and Configuration. • Alarms for High and low Heart rate, low battery warning. • AC 220V / 50 Hz operated. • Built-in Rechargeable battery with charger • Auto tester/self-check. • External pediatric and adults Paddles, ECG cable with reusable electrodes for adult & Peads. • AED facility. • AED pads • Pacing facility 	B
71.	Deionizer	<ul style="list-style-type: none"> • Automatic regeneration after manual initiation. • Constant monitoring of final water quality. • Solid-state reliability for trouble-free service. • Automatic shut-off in event of power failure. • Compact, non-corrosive components. • Convenient, modular construction. • Easy, economical installation • Conductivity of water 0-3µs/m • Flow: 20 to 30 lph 	B
72.	Delivery table/ D&C Table	<ul style="list-style-type: none"> • Couch top made of 3 sections i.e. back, hip, and leg sections covered with mattress having raxine cover. • Leg section removable 	B

		<ul style="list-style-type: none"> • Up/down movement through hydraulic system. • Back seat adjustment through handles. • Removable receptacle under the hip area. • Lithotomy poles with tying strips. • Hand grips on both the sides. • Mobile on castors. 	
73.	Dental Unit with Chair and regulator (10 KVA)	<p>Comprising of:-</p> <ul style="list-style-type: none"> • Dental Unit Chair mounted fully motorized Electric / Hydraulic (Electrically operated). • Air turbine high speed, 3 spray system branded (model must be mentioned) • Air motor (3 in1) slow speed with contra angle attachment branded (model must be mentioned) • Triple syringe. • Built-in Scalar (model and make must be mentioned) • Dental Light : Halogen/ LED • Automatic Cup filler • X-ray film viewer • Stainless steel instrument Tray with S.S lid. • Cotton holder • Waste receptacle • Oil free branded compressor (model must be mentioned) with tank and regulator. • Motor;1.5 HP • Output;100L/min • Pressure;5-8 Bars • Tank capacity;20 L <p><u>Assistant Unit:-</u></p> <ul style="list-style-type: none"> • Cuspidor bowl with flush system (spittoon) • Saliva ejector • High Power Suction system (Air operated) • Triple Syringe <p><u>Dental Chair:</u></p> <ul style="list-style-type: none"> • Fully automatic motorized Electric/ Hydraulic chair (Electrically Operated). • 4 or more positions, operated on 220V / 50Hz • Motorized motion to raise / lower the seat and back by electro-hydraulic System. • Automatic Back to Zero Position. • Equipped with safety cut out device • Adjustable head rest forward/ backward and up /down movements • Right arm swings in / out for patient ease. • Chair movement is smooth and silent through solenoid valves. <p><u>Dental Light:</u></p> <ul style="list-style-type: none"> • Day light Shadow less dental light. • The light arm is well balanced and adjustable to different heights with variable horizontal and inverse movements. <p><u>Doctor's Tray:</u></p>	B

		<ul style="list-style-type: none"> • Moveable over the patient through swing in / out on flexible self-supporting balance arm. • Instrument tray covered with stainless steel lid. • Availability of 4-tubings (Borden 2 holes) • Cotton holder and waist receptacle. • Water on / off Toggle switch and flow control Air / water regulator for hand pieces and triple syringe. • Air pressure gauge. • X-ray viewer. <p><u>Cuspidor unit:</u></p> <ul style="list-style-type: none"> • Water outlet services with junction / utility box. • Equipped with automatic and manual cup filler. • Single piece spittoon with solid collector • Bowl's flush automatic and manual. • Triple syringe, • Saliva ejector • High power suction (Air operated) <p><u>Dentist + Assistant Stool:</u></p> <ul style="list-style-type: none"> • Touch Panel Control on assistant side • Gas operated Seat with Shock absorbing. • Adjustable at any height by lever control. • Anatomically designed back rest for maximum lumbar support. • Seat with back rest rotatable freely 360deg. • Mobile on 5-caster for smooth movement • With foot supporting facility. 	
74.	Dental X-ray	<ul style="list-style-type: none"> • Dental radiographic unit. • Current: 3.5 mA intra-oral x-ray system or better. • Focal Spot: 0.4 or less • Maximum voltage: 70 KV or better. • With imported mobile stand from the same manufacturer • The Unit shall be mounted on a stand having 360° horizontal rotation. • Also, the multiplex arm has a variety of vertical movements. • Mobile on castors. • Digital dental X-ray sensor, Computer Desktop/ laptop with 17-inch monitors LCD/TFT and DVD/CD writer (optional price quoted separately) • Sensor with minimum 3 m cable connects with computer system via USB port. • Sensor (adult and child), Fully waterproof, CMOS technology, • Pixel size 20 microns or better • Active area 20X30 mm or better • Software for viewing image have post processing tools zoom, rotate, contrast adjustment etc. 	B
75.	Distillation water Assembly	<ul style="list-style-type: none"> • Horizontal thick wall heat resistant Glass boiler fitted with 3 KW chromium plated heater. • High efficiency coil condense ensures low temperature, high output quality • Distillate of conductivity 03 to 04µs/m. 	B

		<ul style="list-style-type: none"> • Compact construction suitable for bench and wall mounting. • Screw threads connectors for easy fitting or removal of hose safely. • Built-in constant level device with Schott Ventura-Nova Valve for drainage provides easy de scaling without dismantling. • Safety thermostat • Distilled output: 10 Liters or better per 24 hours single distilled. • Power Supply: 220v, 50 Hz Single Phase. 	
76.	Dry Heat Sterilizer / Hot air oven	<p>Features:</p> <ul style="list-style-type: none"> • Dust-Free Gravity-Flow convection • For drying, conditioning, Sterilizing and quality control. • Display: Temperature control, timer, alarm. • Automatic on/ off function • Over temperature and current protection. • Leakage breaker, fan motor automatically stops when door is opens. • Rapid Heat up in 25 min up to 240°C • Digital Timer built-in Controller • Capacity: 55-60Liters • Temperature Range: Ambient 5°C to 250°C • Accuracy: +1.0°C • Uniformity: + 3.0°C at 120°C • Timer: Automatic timer 0-99 min,99hr, continuous • Material Inner Stainless Steel • Outer Steel with epoxy powder coating • Shelves: Adjustable 2 or more • Electric Supply 220 V, 50Hz 	B
77.	ECG Machine 12 channels	<ul style="list-style-type: none"> • Instantaneous 12 channel ECG acquisition, and 7" or more LCD display. • ADC:24bits, resolution:1uV/LSB • Inbuilt thermal recorder for printing out 12 channels simultaneously on Z-fold paper and port for external printer capable of A4 page printing. • Support the 12-lead ECG analysis program for complete ECG Analysis reports with measurement data table should be provided. • Must be able to indicate at least six critical values that require immediate clinical attention. • Must have continuous display of patient heart and rate. • AC as well battery operated, battery backup time 3 hours or better. • Must have integrated pediatric analysis. • Can save up to 200 ECGs in internal memory or more. • Complete with Patient Cable. • Reusable Electrodes Set. • ECG Rolls 20 Nos. • Gel 5 liters and Standard Accessories with each unit. 	B
78.	ECG Machine 3 channels	<ul style="list-style-type: none"> • 03 channels ECG Machine • Should be portable and lightweight. • ADC:12bits, resolution:1uV/LSB • Voltage 220 volts, 50hz • Display 3" or more. 	B

		<ul style="list-style-type: none"> • Simultaneous 12 leads acquisition • Must have continuous display of patient heart and rate • Must have integrated pediatric analysis. • Support the 12-lead ECG analysis program for complete ECG Analysis reports with measurement data table should be provided. • Must be able to indicate at least four critical values that require immediate clinical attention. • Printer: High Resolution and in built thermal array printer. • Battery Capacity: Must be 4 hours without printing. • Can save up to 200 ECGs in internal memory or more • Complete with Patient Cable. • Reusable Electrodes Set. • ECG Rolls 20 Nos. • Gel 5 liters and Standard Accessories with each unit. 	
79.	ECT Machine	<ul style="list-style-type: none"> • Should have constant current bi-directional square wave brief pulses. • Parameters display on LCD. • Should have protection against paddle to paddle short circuit or open circuit conditions. • Should have stimulus current from 500mA to 800mA or better on either side. • Frequency: 20-120 Hz or better • Pulse width: 0.3ms-1.5 ms or better • Stimulation duration: 0.05- 8 sec • Power Range: 0.6 to 205 joules (or better on either side), for 220-ohm patient impedance • Should have provision of monitoring EEG before and after treatment. • Output should display in joules. • Shock deliver to the patients should be print on paper. • Thermal Chart Recorder provides the user with a hard copy of the self-test and treatment results automatically. <p>Accessories:</p> <ul style="list-style-type: none"> • EEG, Electrodes • Two electrodes for Electroconvulsive therapy having bush button. • Earthing Wire • Conductive Gel • Instruction Manual 	B
80.	EEG 32 Channels	<ul style="list-style-type: none"> • 32 channels EEG amplifier • A/D resolution : 16-bit or better • Sampling rate : 2000Hz or more • CMRR: 100dB or more • Input noise: 1.5 uv or less • Input impedance: 20M ohm or more • With high pass and low pass filters • Brain mapping software (both selective and the whole data base) • Real time programmable spectral analysis. <p><u>Computer Desktop/ laptop (branded)</u></p> <ul style="list-style-type: none"> • CPU Core i 5 Processor: 3.2 GHz. Or better 	B

		<ul style="list-style-type: none"> • Bit Processing: 32 Bits. • RAM: 4GB. • Graphic card latest technology • Hard disk 1TB. • DVD writer. • LED Monitor: 19 inch or better • Key board. • Mouse etc. • With associated software. • Printer: laser printer • With Compatible UPS having at least one hour back up for whole system. • Input power 220VAC, 50Hz <p><u>Accessories</u></p> <p>Complete with standard accessories including.</p> <ul style="list-style-type: none"> • EEG Cap adjustable • Bridge electrode • Crocodile electrode/ disc electrode • EEG paste • Local Trolley (Export quality) 	
81.	Electric Amalgamator	<ul style="list-style-type: none"> • Microprocessor controlled. • Touch pad controls • LED Display • Programmable preset memories • Spring tensions, molded capsule holder • Timer 0-30seconds • Cycle speed 4000CPM or above • Sealed mix area • Accept salt types of capsules including amalgam and incomer. • Power requirements: 220 volts,50Hz 	B
82.	Electric cautery (Dental)	<ul style="list-style-type: none"> • 3 different and separate operating functions: • 1-purecut 2-cut-coag • 3-pure coag • Maximum safety for the patient • The electrosurgical units supplied complete accessories: Hand piece, 10 electrodes and ground plate autoclavable. • Voltage: 220 V 50. • Power output 30W or better 	B
83.	Electric Ripple mattress	<ul style="list-style-type: none"> • Alternating pressure mattress with support area of 1720mmX 850mm or more. • To contain 14 or more air cells with variable geometric section. • The material to contain an anti-bacterial agent. • To have a reinforced base sheet membrane with removable cells and protective cover. • Within built compression pumps having equalizing device to prevent over inflation. • Cycle time to be 10 minutes or more • With CPR Valve / emergency pressure release. 	B

		<ul style="list-style-type: none"> • To have a low-pressure indicator. • To be supplied with a case having handles for easy storage. • Weight 150kg or more • With five spare cells. 	
84.	Electric surgical unit Diathermy	<p><u>Electro surgical unit 400 watts with the following functions</u></p> <ul style="list-style-type: none"> • PURE CUT, • BLEND(1),BLEND(2),BLEND(3) • COAG1 (spray), COAG2 (contact) and AUTO BIPOLAR, FOOT SWITCH BIPOLAR. • Microprocessor controlled. • Percentage output digital display shows on front panel. • Automatic bipolar output without using footswitch • Multi mono polar outlets, two hand control outlets and one Laparoscope outlet. • Hand or foot operated. • With bipolar output power profile to provide good resolution to permit small changes in power levels for delicate work. • Spray Coagulation for the Trans Urethral Resection (T.U. R) and Endoscopic procedures in urology. • Adaptive REM Monitoring: • With REM facility • Alarm enables in case of nonpolar output disables. • Technical Specifications: • Output Power <ul style="list-style-type: none"> PURECUT 400W at300Ω BLEND1 300W at300Ω BLEND2 250W at300Ω BLEND3 200W at300Ω CONTACT COAG 120W at 500Ω SPRAYCOAG 70W at 300Ω BIPLAR COAG 80W at100Ω BIPLAR CUT 80W at100Ω. Operating Frequency: 400KHZ±10% or better Input Voltage: 220V, 50Hz <p>Standard Accessories</p> <ol style="list-style-type: none"> 1. Footswitch 2 pedal with cable 2. Footswitch 1 pedal with cable 3. Disposable Foot switching pencil with cable 4. Disposable 2 push button monopolar pencil with cable and electrode 5. Reusable Bipolar forceps and Cable asset 6. Reusable patient plate with cable for adult 7. Set of electrodes (6Pieces) for reusable and disposable handle 8. Power cable 9. Locally manufactured trolley 	B
85.	Electro Mechanical Operation Table	<p>General Design:</p> <ul style="list-style-type: none"> • The tabletop should be 100% radiolucent material & X-Ray access. • 5 sections table plate • Load capacity should be no less than 200kg • The table should be water-proof and anti-static material and can be washed by water directly. 	B

		<ul style="list-style-type: none"> • The thickness of the mattress should be 50mm or more • It should have a battery inside the table, which can work 40-80 operations and the battery should be standard configuration. • It should have electric longitudinal shift function not less than 200mm towards foot side. • The rails and the column of the table should be made of high level of aluminum alloy. • Length of the table: 2000 mm or better • Width of the table with rails: 540 mm or better • The thickness of mattress: 50mm or better <p>Electric Function:</p> <ul style="list-style-type: none"> • The lowest position: 680 mm or better • The highest position: 1030 mm or better • Longitudinal shift: 200 mm or better • Lateral Turn left: 15° or better • Lateral Turn right: 15° or better • Trendelenburg position: 25° or better • Reverse Trendelenburg position: 25° or better • Back plate up position: 70° or better • Back plate down position: 40° or better • Flex position: 220° or better • Re-flex position: 110° or better • Head plate up: 30° or better • Head plate down: 45° or better • Build-in elevator: 120 mm or better • Leg plate up: 20° or better • Leg plate down: 90° or better • Leg plates spread: 180° or better • Battery operated and all positions and angles must be controlled with remote. <p>Standard Accessories:</p> <ul style="list-style-type: none"> • Mattress set, Pair of arm rest with quick dis-connectable clamps. • Adjustable head rest. • Pair of shoulder supports. • Lithotomy pole with universal swivel clamps. • Anesthesia frame 1 Nos • Infusion rod 1 Nos • Footrests 2 Nos. • Side supports 2 Nos <p>Note: ± 10% of degrees and measurement's will not be considered as deviation.</p>	
86.	Emergency light with single reflector AC/DC Or Examination light AC/DC	<ul style="list-style-type: none"> • LED light source • Portable • Light intensity 100,000 lux at 1 meter or better • LED life of 50,000 hours or more • Color Correction to 4000degKelvin • With intensity light control <p>Mechanical:</p>	B

		<ul style="list-style-type: none">Multi flex arm with ultimate flexibility of positioning the lamp head. Electrical Supply: <ul style="list-style-type: none">Reversible overload and short circuit protectionBackup power system with rechargeable branded dry battery(s)with backup time at least 3 hours or better.															
87.	EMG 4 Channels	<ul style="list-style-type: none">A/D conversion resolution: 14 Bits or betterInput Impedance: > 1000M OHMSensitivity: 1μV-10mV/Grid or betterCommon-mode rejection ratio (CMRR): >=100dBHigh Cut Filter-frequency: 0.1Hz or betterLow Cut Filter-frequency: 20kHz or betterNotch Filter 50Hz/60HzWith Junction BoxWith TrolleyWith Laser PrinterWith Compatible UPS having at least one hour back up. Computer Desktop (branded) <ul style="list-style-type: none">CPU Core i 5 Processor: 3.2 GHz. Or betterBit Processing: 32 Bits.RAM: 4GB.Graphic card latest technologyHard disk 500 GB.DVD writer.Printer: laser printer.Genuine anti virusLED Monitor: 19 inch or better.Key board.Mouse Accessories: <table><tr><td>1. EMG Interface / Junction Box</td><td>01</td></tr><tr><td>2. 26G Concentrate Needles</td><td>25</td></tr><tr><td>3. Needle Holder</td><td>01</td></tr><tr><td>4. NCS Cable Reusable</td><td>01</td></tr><tr><td>5. Ring Electrode</td><td>03</td></tr><tr><td>6. Surface Electrode</td><td>50</td></tr><tr><td>7. Ground Electrode</td><td>01</td></tr></table>	1. EMG Interface / Junction Box	01	2. 26G Concentrate Needles	25	3. Needle Holder	01	4. NCS Cable Reusable	01	5. Ring Electrode	03	6. Surface Electrode	50	7. Ground Electrode	01	B
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7. Ground Electrode	01																
88.	ENT workstation (Examination +treatment)	Main Unit <ul style="list-style-type: none">Durable steel casing, non-rusting, long lastingLarge instrument surface made of stainless steel with dividers and heating system to heat the instruments, laryngeal mirrors and endoscopes.Device to Heat the laryngeal mirrors.Compressed air system continuously adjustable from 0.1 to 4 bars for spray and politzering, spray liquid with autoclavable nozzle for cleaning.Handle for compressed air should be having a regulation valve.Medication reservoir be made of stainless steel, should be detachable and suitable for all type of medications.	B														

		<ul style="list-style-type: none"> • The system should have variable compressor inletting air through the filter. • Compressor unit should be completely separate from suction unit. • Inbuilt motor suction unit with capacity of 35 liters per minute • Should have a vacuum gauge, bacterial filters, 1.5 liters liquid container and effective device to prevent overflow. • Suction tube should have automatic on off switch and small ear rinse funnel. • Warm water rinsing Device with autoclavable stainless steel handle with snap closure system and fine spray regulation valve. • Separate stainless steel to prevent mineral build up and heat up to 38-degree temp. • Cold water irrigation through existing water connection • Automatic liquid container discharge system should be provided. • Suction tube cleaner with exchangeable re-usable adapter. • Dispenser for cotton and paper. • Provision for attachment of microscope. • Endoscopy center with cold light source with two outlets with 300 LED/XENON/HALOGEN light bulb. • Head light with fibro-optic cable to be used with above light source for examination • Head light rest made of stainless steel • Two warming quivers for rigid endoscope-should be removable for autoclaving and cleaning • Automatic on/off switch for single light outlet with light barrier • Power supply 220-240 volts/50 Hz • Inbuilt/Integrated Mono and Bipolar cautery system with all cables & probes/forceps. <p>RIGID ENDOSCOPES</p> <ul style="list-style-type: none"> • 4mm/ 30 degree nasal endoscope ---- Qty 1 • 2.7mm/ 30 degree nasal endoscope-----Qty 1 • Magnifying 90 degree Laryngoscope with facility to focus manually----Qty1 • Ear telescope 3mm-diameter/ 6cm length/ 0 degree---Qty 1 • All above endoscopes should be autoclavable and should have the facility to couple with HD camera head for record, take images and transmit the same monitor for better visualization. <p>ENT EXAMINATION MICROSCOPE:</p> <ul style="list-style-type: none"> • The ENT examination microscope with integrated, fanless high transmission, high performance LED illumination in the microscope head. • Integrated, finless high performance white-light-LED Optimized stereo effect by 24 mm stereo basis • Mechanical support arm for the microscope • Expandable with scale projection at the image plane with an option of green filter Objective: 250 mm, (fine focusing) • Objectives with manual fine focusing Visualization: 	
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		<ul style="list-style-type: none"> • ENT Microscope should have the facility to couple with HD camera head for record, take images and transmit the same monitor for better visualization. • wide-field eyepiece 16x magnification • The ENT microscope should be attached/ mounting with main ENT unit. <p>Display and recording system.</p> <ul style="list-style-type: none"> • High resolving 1/3" CCD camera easily attachable with endoscope and microscope. • It should have the facility during examination to rotate, and hold/pause the image • Recording of images and videos in HD digital formats. Easily transferable to External hard drives and USB pen drives/storage cards without losing resolution. • High light HD-LED monitors 21 inch or better. <p>ENT PATIENT EXAMINATION CHAIR</p> <ul style="list-style-type: none"> • Should be motorized and ergonomically designed examination and treatment chair facilitating the posture of both doctor and patient • Heavy base casing • All elements of chair should be shaped according to the patient position. • Seat should have motorized lifting device • Seat should have height adjustment for children • Integrated foot switch for easy adjustment of height • Should have complete rotation 360 degree with locking device • Should be comfortably padded and folded back for enabling easy sitting of overweight and handicapped patient • Head rest-15cm with adjustable height. • Backrest adjustable and can be made to incline 10 degree forward to vertical position and backward completely to a horizontal position and can be rolled back • Movement of armrest and footrest should be synchronized with backrest movement • Power supply:220VAC V, 50H <p>DOCTORS EXAMINATION CHAIR</p> <ul style="list-style-type: none"> • Wide base, should have rolling casters for easy movement • Should have back rest • Easy height adjustment of hydraulic nature • Comfortably cushioned seat. 	
89.	Fracture Operation Table with Ortho Traction Attachment	<p>General Design</p> <ul style="list-style-type: none"> • Stable base construction with four castors for easy movement. • Manual base brake, lateral tilt and Trendelenburg adjusted by hand crank, base cover, side rails, accessories & clamps made of stainless steel. • Table Top • 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. 	B

		<p>With side rails for the insertion of X-Ray cassettes (must equipped with acrylic sheet plates for X-ray radiography).</p> <ul style="list-style-type: none"> • Length: 190-200 cm or better • Width: 50 cm or better • Height: 75-95 cm or better • Trendelenburg / Reverse Trendelenburg: +20°/-20°each • Lateral Tilt Left/Right: 20°/20°each • Head plate: +40°/-40° <p>Standard Accessories:</p> <ul style="list-style-type: none"> • Mattress set. Pair of arm rest with quick dis-connectable clamps. • Designed for easy installation and removal. • Adjustable head rest. Pair of shoulder supports. • Lithotomy pole with universal swivel clamps. • Anesthesia frame 1 each • Infusion rod 1 each • Foot rests 2 each • Side supports 2 each • With inbuilt Kidney Elevator Facility. <p><u>Attachment:</u></p> <ul style="list-style-type: none"> • Traction stopper with mattresses. • Castor with break device • Vertical evaluator lock handle. • Traction crank • Reaction foot boot. • The tractor range is 200 mm and elevation range 200 mm. <p>Note: ± 10% of degrees and measurement's will not be considered as deviation.</p>	
90.	Glucometer	<ul style="list-style-type: none"> • Glucose monitor, battery operated, hand held, complete with case. • Lancet holder with lancets and glucose monitoring strips. • The supplier to ensure the availability of strips. • To be supplied with 1000 strips <p>Separate price must be quoted for strips.</p>	B
91.	Gynae Vacuum Suction Apparatus/vacuum extractor with trolley	<ul style="list-style-type: none"> • To be used in fetal vacuum extraction. • Neonatal endotracheal amniotic fluid suction. • Surgical suction during operation and uterine aspiration for abortion with super suction curettes. • 2 Suction Bottles, each 2500cc or better. • Vacuum pressure 650mmHg or more • Flow capacity: 40lit/min or above. • Automatic over flow cutoff. • Foot switch. • Tray for instruments • Rubber tube 2 meter • Curettes, large, Medium, and Small • Mains input supply: 220 volts, 50Hz 	B
92.	Head Light with Cool Illumination	<ul style="list-style-type: none"> • White cold light illumination LED with 30000 Lux or better • With 5500 Kelvin. • Adjustable headband with washable inner padding. 	B

		<ul style="list-style-type: none"> • On / off switch on battery compartment. • With Charger. • Backup time 3 hrs or more. 	
93.	HFNC	<ul style="list-style-type: none"> • Should be used for adults and peds • Paedric Mode:2-25 l/m or better • Adult: 10-60 l/m or better • Oxygen Concentration: 21% to 100% • Should Have LCD/TFT display • With heated humidifier • Display to monitor humidity setting, flow, Fio2 and faults. • Visual and audible alarm for Tube disconnect leaks, tube blockage, hardware faults and audible failure alarm. • Supplied with heated wire patient breathing tube and nasal cannula of different sizes. • It should be compatible for use of Tracheostomy patients. <p>Accessories:</p> <p>Disposable heated wire Patient breathing tube having sizes as small, medium and large</p> <p>Disposable Nasal cannula having sizes as small, medium and large</p> <p>Local made trolley</p>	
94.	Humidifier	<ul style="list-style-type: none"> • Adjustable exit steam Moisture sensors for adjusting required moisture. • Transparent water container. Easy to clean thermo steam maker parts. • Applicable to create desirable atmosphere for children. • Built-in circuit breaker to be operated in time of dry up. • Must have cool body all through the operation. • Should have thermo steamer element with Teflon resistant coating. • Easy cleaning. 	B
95.	Hydraulic Operation Table	<p><u>General Design:</u></p> <ul style="list-style-type: none"> • Stable base construction with four castors for easy movement. • Manual base brake, lateral tilt and Trendelenburg adjusted by hand crank, base Cover, side rails, accessories & clamps made of stainless steel. <p><u>Tabletop:</u></p> <ul style="list-style-type: none"> • 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). • Full set of hydraulic control system for hydraulic lock protection • Size: 2000x500x750 mm \pm 10 % • Trendelenburg/ Reverse Trendelenburg 25°/25°each • Lateral Tilt Left/Right +15°/+15°each • Head plate up/down +40° / -40° 	B

		<u>Standard Accessories:</u> <ul style="list-style-type: none"> • Mattress set, Pair of arm rest with quick dis-connectable clamps. • Adjustable head rest. Pair of shoulder supports. • Lithotomy pole with universal swivel clamps. • Anesthesia frame 1 Nos • Infusion rod 1Nos • Foot rests 2 Nos. • Side supports 2 Nos • With inbuilt Kidney Elevator Facility 	
96.	Indirect Ophthalmoscope	<ul style="list-style-type: none"> • Brightness for difficult examinations • Halogen light • With light intensity control. • Headband: Light weight and comfortable. • Single control to change aperture size and position in one movement to view through all pupil sizes. • Inbuilt IR and UV barrier. • With 20 D indirect lens 	B
97.	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"> • Infant warmer system to provide controlled source of radiant heat for infant. • Temperature Control (Skin). • <u>Temperature Adjustment:</u> • Skin Temperature adjustment: 34°C ~ 37°C, • Microprocessor controlled skin servo mode operation with digital display. • Digital display for Infant Temperature • Audible and visual alarms and automatic switch off if temperature reaches at 38°C. • Built-in examination light • Built-in air/gas driven venture suction system • Tilting large bed platform suitable for x-ray cassettes, with cassette holder. • Bed with mattress having Trendelenburg and reverse Trendelenburg position. • Accessible from all sides with acrylic collapsible side panels • Trolley with 2 Lockable castors or more. • Power Requirement: 220~V, 50Hz <p><u>Accessories</u></p> <ul style="list-style-type: none"> • 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). • Skin probe reusable. • Infant face masks (Large, Medium, Small) 	B
98.	Infra-Red	<ul style="list-style-type: none"> • Floor Stand Type 	B

	Radiator Large	<ul style="list-style-type: none"> • Radiators: 3 X 150 W or better • Automatic cut off timer • Timer adjustment: upto 15 minutes • Mounted on 4 or more lockable casters. • Adjustable height 	
99.	Infra-Red Radiator Small	<ul style="list-style-type: none"> • Floor Stand Type • Radiators: 1 X 150 W or better • Automatic cut off timer • Timer adjustment: up to 15 minutes • Mounted on 4 or more lockable casters. Adjustable height	B
100.	Infusion pump	<ul style="list-style-type: none"> • Infusion pump with visible handle, with IV Pole. • Power requirements: AC: 100-240V; 50Hz • Modes: weight, Volume, and flow rates • Delivery / Flow rate: 0.1-999.9ml/h • Volume range 1-9999 • Occlusion Limit low, Normal, High • Facility with keep vein open rate. • Anti-Bolus function, Titration function should be available. • Volume infused display and Dynamic cannula pressure displayed on screen. • Full alarm system. • Air in line detection. • Occlusion detection capability. • Vertical stand mobile type • Builtin battery backup: 2 hours or better • Water-Proof Grade : IP34 or Equivalent • With all standard accessories. 	B
101.	Laboratory Incubator	<p>Microprocessor controlled Laboratory Incubator with the following specifications.</p> <ul style="list-style-type: none"> • Stainless steel chamber with adjustable shelves and a tough ended glass inner viewing door. The outer cabinet is to be rust resistant. • Temperature control by digital display from 0-0.99.9 h or continuous • Alarm system for high and low temperature, Door close / open. • With over temperature safety cutout to be set by the user. • Fitted with circulation fan. • Temperature : Range: At least 5°C above ambient to +60°C • Control (Fan): $\pm 0.1^{\circ}\text{C}$ at +37°C • Variation (Fan): $\pm 0.25^{\circ}\text{C}$ at +37°C • Chamber Capacity: 80-100Liters • Shelves: 2 or more 	B
102.	Microtome Machines	<p>Fully Automatic Microtome Machines with the following specifications:</p> <ul style="list-style-type: none"> • Applications” Sectioning of Paraffin embedded specimen for routine and research histology. • Section thickness range: 0.5-60 um or better on either side • According to manufacturer design 	B

		<ul style="list-style-type: none"> • Specimen Retraction: 20 um • Trimming Thickness: 1um to 600 um • According to manufacture design • Displacement of blade holder Base: Vertical and horizontal direction • Vertical Cutting stroke length: 70mm or more • Electrical Requirement: AC 220V / 50Hz 	
103.	Microvent	<ul style="list-style-type: none"> • Unit should be hand held type & pneumatic oxygen powered with no electric power required. • Should have option for automatic time cycled and manual trigger selection. • Unit should be capable to cater adults and children (10Kg or less) • Should have capability of auto air mixing 100% or 50% with no external air supply. • Should have Patient assist valve. • Automatic flow rate (L/min) 36 to 12 or better • Automatic tidal volume 150ml to 1000 ml • Automatic I:E ratio 1:2 • Adjustable automatic frequency 10 to 25bpm • Manual flow rate 40 lpm • Should have pressure relief valve with audible warning limits. • Should have expiratory resistance 0.5 kPa or better. • Patient assist trigger pressure -0.5 kPa or better • Unit should be capable to operate on central gas supply system & oxygen cylinder through compatible probe. <p>Accessories:</p> <ul style="list-style-type: none"> • Fabric Case. • Oxygen therapy mask for adult & children. • Resuscitation face mask made of silicon for adult & children. • Four oro-pharyngeal airways. • Flexible ET tube mount. 	
104.	Mini Autoclave for dental	<ul style="list-style-type: none"> • Microprocessor controlled. • Mini autoclave Class B type • Capacity 18 liters or more (Bench top) • Digital display • Automatic functioning • Pre and post fractionated vacuum. • Sterilization temperature:121°C to134°C • With demineralizer (model and make must be mentioned) 	B
105.	Nebulizer	<ul style="list-style-type: none"> • Maximum compressor pressure 2.5-3.0 bar • Nebulization rate 0.3 ml / min • Compressor air flow 10lit / min or better • Particle size(mmad) 0.5m to 5m • Noise level 55 db • Electrical requirement 220v/ 50Hz <p>Nebulizer assembly and Accessories :</p> <ul style="list-style-type: none"> • Tubing • Nebulizer cup 	B

		<ul style="list-style-type: none"> • Oxygen Percentage level: 1-10 Ltr per Minute 95%±3% or better • With Humidifier • With Connecting Pipe • Mobile on 04 Castors 	
110.	Paraffin Wax Bath for Foot	<ul style="list-style-type: none"> • Capacity 15 liters or more • Thermostatically controlled. • Double walled • Material Stainless steel • Temperature Control 0- 90 degree C • Immersion Heater 2000 watt • with insulated boots: 02 Pairs • Input Supply 230 V AC, 50 Hz • Paraffin Embedding Wax Bath 	B
111.	Paraffin Wax Bath for Hand	<ul style="list-style-type: none"> • Capacity 15 liters or more • Thermostatically controlled. • Double walled • Material Stainless steel • Temperature Control 0- 90 degree C • Immersion Heater 2000 watt • with insulated mits: 02 Pairs • Input Supply 230 V AC, 50 Hz • Paraffin Embedding Wax Bat 	B
112.	PH Meter	<p>PH:</p> <ul style="list-style-type: none"> • PH Range Accuracy: .0 ~ 14 • Resolution: 0.01 • Calibration: User selectable 1 or 2 points. <p>mV:</p> <ul style="list-style-type: none"> • Range: ±1900mv. • Resolution: 0.01mV • Accuracy: ±1mV <p>Temperature:</p> <ul style="list-style-type: none"> • Temperature range: -5~100°C ±0.4°C. • Resolution: 0.1°C. • Accuracy: ±0.5°C <p>Display:</p> <ul style="list-style-type: none"> • Display: LED / LCD. • Power: DC Power Adaptor. 	B
113.	Phototherapy Unit	<ul style="list-style-type: none"> • Flexible positioning • LED type • Intensity: 35uW/cm²/nm at 40cm or better • Display: LCD Digit Display • Irradiation timer: 0 to 99 hr. or better • Inclination angle: Freely adjustable from horizontal to vertical • Placement: Directly on the incubator /beds. • Power requirements: 220 V, 50Hz; • Accessories: Eye Cover (100 Pieces) 	B
114.	Point of care	<ul style="list-style-type: none"> • Microprocessor control portable 	B

	Testing (POCT) analyzer	<ul style="list-style-type: none"> • Test Coagulation, ABGs, Electrolytes, Hemoglobin, Hct, Glucose, creatinine. • Easy to operate. • Auto calibration available • Sample type: whole blood, serum, plasma, and urine • Sample volume Less than 80µL • Patient data storage capacity not less than 1000 or better • Operating temperature 5 to 40C or better • Capable to show result one screen and built-in thermal printer available to print result on paper. • Input power 220VAC 50Hz 	
115.	POP cutter / Plaster Cutting Saw	<ul style="list-style-type: none"> • Speed: 0-11000 rpm • Current: 10 Amp • Frequency: 50 Hz • Blade Size: 7.5 mm to 2.5 mm • Voltage: 220 Volt 	B
116.	Portable lamps AC/DC or Emergency light AC/DC	<p>Operating Light with: -</p> <ul style="list-style-type: none"> • Single dome • On Balance mobile Stand • LED light source • Light intensity Max 100,000 lux or better • LED life of 50,000 hours or more • Color Correction to 4350 deg Kelvin • With intensity light control • Multi flex arm with ultimate flexibility of positioning the lamp head. <p><u>Electrical Supply:</u></p> <ul style="list-style-type: none"> • 220-volt 50Hz, • Reversible overload and short circuit protection • Inbuilt Backup power system with rechargeable branded dry batteries with backup time at least 03 hours 	B
117.	Pulse Oximeter	<ul style="list-style-type: none"> • Hand held pulse oximeter. • Sensors: Finger clip with probe for neonatal, Paeds & adult. • Range: O2 saturation 0 -100%. • Pulse rate 20 – 250 bpm or more. • Display: Pulse waveform, SPO2 and pulse rate and O2 Saturation. • Resolution: O2 saturation 1% • Accuracy: O2 saturation 80-100% ±2% • Built in rechargeable battery: backup 5 hours or better. 	B
118.	Pure Tone Audiometer	<ul style="list-style-type: none"> • Large backlight graphical LCD display • Input voltage 220v,50Hz • True two channels include microphone, assistant phone. • Automatic data transfer to computer and data printer • Test signals: pure, pulse, warble tone, narrow band, white. • Speech masking noise. • Tone test • Speech test. 	B

		<ul style="list-style-type: none"> Inputs: CD/Tape, stereo live speech microphone, external masking, patient microphone, patient response switch. Air conduction range: 60db to 90dBHL or better on either side, include headphone. Bone conduction range: 60db to 70/75 db or better. Speech: 60db to 100dbHL. Masking: Free as well as synchronized masking High tone audiometry for AC 125 hz - 8000 Hz High tone audiometry for BC 250 hz - 8000 Hz Selectable range of Test frequencies. <p>Accessories:</p> <ul style="list-style-type: none"> Air conduction head set. Bone conduction head set Patient response switch Micro phone. 	
119.	Resuscitation Trolley / ICU Trolley / CPR Trolley	<p>Overall dimension 2.5'(L) x 2'(W)x3' H or better</p> <ul style="list-style-type: none"> Electro-galvanized steel sheet structure / aluminum alloy/ ABS, Epoxy powdered coated, finish rounded, edges washable and can be infected. Push handles one end. Height adjustable IV Holder rod. Shelf for defibrillator / ECG can be rotatable with locking facility. Three or more drawers. Detachable waste bin with bag holder. CPR board. Antistatic no skidded casters with 2 brakes. Oxygen bottle support with fastening belts. Catheter tubes holder. Stainless steel / plastic bracket on back side for mounting oxygen cylinder/bracket for mounting oxygen cylinder. 02 Nos Electrical universal power outlet and rollup power supply cable. <p>Accessories</p> <ol style="list-style-type: none"> Oxygen Cylinder small size Oxygen Regulator Oxygen flowmeter Resuscitator Set reusable and autoclavable comprising of. <ul style="list-style-type: none"> Silicon Resuscitation Bag with adult face mask sizes 3, 4, 5 & Airway size 3, 4, 5 with E2 valve and fully autoclavable. Reservoir bag volume 2 liter or more Laryngoscope with 3 blades Magill Forceps Endotracheal Tubes set of 12 tubes. Pen torch 2 qty Artery forceps 2 Dressing scissors 2 	B
120.	Shadow less lamp (Ceiling	<ul style="list-style-type: none"> Shadow less light ceiling type, including single arm, 360 degree rotary stable and suspended. 	B

	type) or Ceiling OT light for minor OT or Ceiling OT light for post- mortem	<ul style="list-style-type: none"> • The light should be height adjustable and focused according to the size of the patients surgical area. • Dual Dome • Intensity control available. • LED light source • Light intensity: Maximum 160,000 Lux + 160,000 or better at 1 meter distance • LED life of 50,000 hours or better • Color Correction to 4000degKelvin or better • Input power 220VAC, 50 Hz • With sterilized handle for movement. • Backup power system with branded dry battery (s), with backup time at least 03 hours or more. • Complete with Installation 	
121.	Shoe Covering machine	<ul style="list-style-type: none"> • Case material: stainless steel and ABS plastic • Stainless steel handlebar for extra stability • Powder-coated metallic colored handlebars • Weight: 40 lbs or better. • Refills: holds up to 220 shoe covers (two bundles/cartridges) • Dimensions: 28" length x 13" width x 35" high or better (with handlebar) • Power source: no electricity needed 	
122.	Sonic Aid Machine/Fetus Heart Detector/Fetoscope	<ul style="list-style-type: none"> • Fetal Heart Beat / Sound Detection & Rate Monitoring. • Heart rate digitally displayed, • Heart beat audible through the built-in speaker (earphone). • Ultrasonic frequency/output: 2 MHz,10mW/cm2 • Audible output: 0.6W (Speaker output: Max.20W) • Heart rate detection range: 50-240bpm • Power requirements: Rechargeable battery12V with AC recharging unit. 	B
123.	Spirometer/ Pulmonary function unit	<p>Examination of pulmonary system and to measure & display lung function parameters and must meet ATS/ERS standards</p> <p>It should be able to measure /do the following.</p> <ul style="list-style-type: none"> • Spirometer & Flow Volume parameter • Maximum Ventilation Volume • Pre & post Broncho – dilator comparison • Lung Volumes & Sub – divisions • Feasibility of real time Flow/volume loop and volume/time curve with Pre/Post comparison. • Broncho Provocation Test. • Should incorporate Electronic Barometer & temperature • Overlaying of previous test curves for comparison. • The unit have LCD/TFT screen to display real time relevant information and also have a thermal printer. • Rechargeable battery backup time at least 2 hours • Flow meter Bi-directional digital flow sensor (flow: up to 15L/s or more, accuracy: within 3%) • Dynamic Resistance : less than 1 cmH2O /L/Sec. 	B

		<ul style="list-style-type: none"> Parameters should be measured with highest accuracy & reproducibility and accuracy should be least, if at all affected with High surrounding Temperature and humidity levels. Pulmonary Filters (100 Nos), Disposable Mouthpieces (500 Nos) Facility to interface with computer desktop / Laptop to transfer data for analysis. <p><u>Computer Desktop/ laptop (branded)</u></p> <ul style="list-style-type: none"> CPU Core i 5 Processor: 3.2 GHz. Or better Bit Processing: 32 Bits. RAM: 4GB. Graphic card latest technology Hard disk 1TB. DVD writer. LED Monitor: 19 inch or better Key board. Mouse etc. With associated software. Printer: laser printer <p>Input power 220VAC, 50Hz</p>	
124.	SS Filtration Assembly	<ul style="list-style-type: none"> Autoclavable filter holder Manifold made of stainless steel. Two-way valve for independent control Able to mount on filters. Table top model Shall come with vacuum pump preferably peristaltic type. Suction should be capable of processing micro pore filter of 0.4 micron. Power supply 220V single phase Accessories Complete with standard accessories includes:0.4-micron filter box of 200's 	B
125.	Suction machine Heavy Duty/ Electric suction Machine	<ul style="list-style-type: none"> Mobile suction pump Oil-Less along with 4 anti- static wheels with lock. Convenient for operation, with following performance features: Built-in Vacuum gauge with a range from: 0-650 mm Hg or better adjustable. Flow capacity: Not less than 40 l/min or better Explosion proof footswitch. Capacity of two graduated suction bottle: 3000cceach or more (Autoclavable) Heat resistant and disinfect able rubber tube for suction. Over flow safety device. Power requirement: 220V, 50Hz. Complete with suction nozzle and other standard accessories 	B
126.	Syringe Destroyer	<ul style="list-style-type: none"> Surplus liquid in the needle should vaporize to avoid pollution. No spark should eject during operation Should work with low electric voltage to melt the needle instantly and destroy syringe body. 	

		<ul style="list-style-type: none"> • Working time should last for not more than 3 seconds. • Should work with built-in rechargeable battery. • Should destroy not less than 200 pieces of 20ml syringe. • Should destroy needle size from 18G to 34G. • Working noise level should be ≤ 50 db. • Should have superheating protection temperature 85°C 	
127.	Syringe pump	<ul style="list-style-type: none"> • Power requirements: AC: 100-240V; 50Hz • Syringe size: 5ml, 10ml, 20ml, 30ml, 50/60ml • Increment: 0.01ml/h • Modes: Volume Weight and rate • Delivery / Flow rate: 0.1-999.9ml/h • Volume range 1-9999ml • Occlusion Pressure: Adjustable • Full alarm system • Occlusion detection capability. • Built-in battery backup: 2 hours or better • Water-Proof Grade: IPX4 or Equivalent 	B
128.	Therapeutic Ultrasound	<p>Microprocessor controlled Therapeutic Ultrasound with the following specifications:</p> <ul style="list-style-type: none"> • Operating voltage: 100-240 V \pm 10% (50 Hz) • Ultrasound frequencies: 1 and 3 MHz • Mode: Continuous and pulsed • Pulse frequency: 1Hz - 100 Hz • Duty cycle: 10, 25, 50, 75% • Intensity: 0-3 W/cm², • Pulsed Number of US connections 2 • US applicator large 5 cm² • US applicator small up to 1.00 cm <p>Standard Accessories:</p> <ul style="list-style-type: none"> • Multi frequency treatment • Holder treatment head 	B
129.	Three Channel Holter monitor	<ul style="list-style-type: none"> • 3 Channel ECG holter system • Recorder should be cable-free / cable. • Should have rechargeable battery • Water resistant • Should have Recording LED indicator • ADC resolution: 24 bits • Sampling rate: 250 samples/sec • Integrated filters and signal processing Frequency bandwidth: 0.1(0.05)Hz - 75Hz • input voltage range: < 40mV • Interfaces for data analysis and signal control (USB) • Storage capacity: up to 60 days • ECG Holter analysis software • For cable free software tools should be able to support signal viewer for Android/tablet PCs • Software Compatible PC System with UPS & printer. • With standard accessories. 	B

130.	Transcutaneous Electrical Nerve Stimulators (Tens)/Electric Stimulator	<ul style="list-style-type: none"> Channel : Dual isolated between channels LED display Pulse rate: 2 – 150 Hz 1Hz / Stp Pulse width : 30-300 micro sec 10 micro sec / Stp ON time 2-90 seconds 1 sec /Stp OFF time 0-90 seconds 1 sec / Stp Mode 5 TENS mode : B(Burst), N(Normal), M(Modulation), SD1,SD2 2 EMS modes S(Synchronous), A(Alternate) Waveform: Asymmetrical , Rectangular, Biphasic pulse Current channels: 4, independent, fully galvanically separated Current forms: 16 current forms-30 varieties Programmable positions: 200 or more Pre-programmed protocols: 50 <p>STANDARD ACCESSORIES</p> <ul style="list-style-type: none"> 2 x Strap 250x3 cm / 2x adhesive and conductive electrode 2 x Strap 100x3 cm/ 2x adhesive and conductive electrode 4 x Rubber electrodes 6x8 cm, 2 mm female, set of 2. 2 x Moist pads for rubber electrode 6x8 cm, set of 4. 4 x Patient cable 2-core & 2 mm male plug - black, with colored clips 	B
131.	Ultra Violet Lamp Large	<ul style="list-style-type: none"> Floor Stand Type Radiators: 3 X 350 W or better Automatic cut off timer Timer adjustment: up to 15 minutes <p>Mounted on 04 or more lockable casters</p>	B
132.	Ultra Violet Lamp Small	<ul style="list-style-type: none"> Floor Stand Type Parabolic reflector Radiators: 1 X 350 W or better Automatic cut off timer Timer adjustment: up to 15 minutes Mounted on 04 or more lockable casters 	B
133.	Ultrasonic Nebulizer	<ul style="list-style-type: none"> Oscillation frequency 1.5MHz or better Nebulization rate 0.3 ml / min Nebulizer cup capacity 30cc or better Particle size(mmad) 0.5m to 6m Electrical requirement 220v/ 50Hz Nebulizer assembly with all Accessories including Child mask, Adult mask 	B
134.	Urine meter	<ul style="list-style-type: none"> Cold light source, Auto safe data in case of power failure. Ascorbic acid, bilirubin, blood, glucose, ketene, leucocytes, nitrite PH. Throughout normal mode. 60 sample / hour. Continuous mode. 120 sample/hours or better Display: 5” large LCD or better. Memory: 1000 sample results. Output Built-in thermal printer. 	B

135.	Vein Detector	<ul style="list-style-type: none"> • Handheld portable Vein finder / showing system. • Positive projection distance: 25cm~35cm or better. • Projection color control / adjustment available. • Projection size control / adjustment available. • Brightness control / adjustment available. • Rechargeable built-in battery. • Tabletop stand / Floor stand from the same manufacture should be providing with the machine. 	B
136.	Vessel Sealing System	<ul style="list-style-type: none"> • Advance Bipolar seal and cut technology can be used in general surgery, Gyne, urology and thoracic surgery. • Uniform tissue compression distal to proximal for better sealing • Tip first closer for retain tissues within the jaws for improved compression. • 80 Degree articulating jaw to allow simplified navigation in challenging anatomy. • Including items:- Generator 5mm Instrument with for Laparoscopy qty 2 5mm Maryland instrument without articulating jaw for Laparoscopy qty 2 5mm instrument for open surgery qty 2 Foot switch Power cord Imported Trolley with wire basket 	
137.	Vortex mixer	<ul style="list-style-type: none"> • Touch operation or continuous mode with variable speed control 0-2600 rpm. • Can be used for various mixing application with optional adapter. • With fixed or adjustable speed. • Voltage Ranges 100-240V, Frequency Required 50/60Hz and Power 60W. • Mixing motion orbital and orbital Diameter 3.8-4mm. • Shaded Pole motor with rating input 57-58W and Rating Output 10W. • Speed Display scale must be available and weight 3-4kg. • Environment Temperature Ranges 5-45°C and permissible relative humidity =80%. 	B
138.	Water Bath	<ul style="list-style-type: none"> • Microprocessor controlled. • Capacity: 20liters or more • Digital display for temperature controlled. • Temperature Range: Ambient to 99 °C • Accuracy: +-0.5 °C • Uniformity: +- 2.0°C • Material: Bath: seamless stainless steel with lid • Case power coated steal • Safety: over temperature cut-off, Alarm • Electric supply: 220v,50Hz 	B
139.	Air 240 Cft Cylinder	<ul style="list-style-type: none"> • The cylinder must be of standard quality. • BOC/Equivalent testing certificate must be provided 	C

140.	Air 48 Cft Cylinder	<ul style="list-style-type: none"> The cylinder must be of standard quality. BOC/Equivalent testing certificate must be provided 	C
141.	Baby Cots	<ul style="list-style-type: none"> Powder coated mild steel 18 SWG tubular frames. Lying area made of rectangular hollow pipe frame with wire mesh. Mobile on 50 mm dia. Rubber castors. Safety sides can be adjustable up & down easily. Standard cushioned Rexene foam mattress with 2 inch thickness. Laying area 55 cm x 100cm. 	C
142.	Bed side Locker	<ul style="list-style-type: none"> Overall size of locker 40cm width, 40cm depth, 80 cm height. Made up of SS 18 SWG. One drawer. One cabinet with space between the drawer and cabinet. Base made of 1" round/square pipe. FINISH: Polyester powder coated finishing 	C
143.	Bed side steel stairs	<ul style="list-style-type: none"> Stainless Steel 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 in aluminum/strip/Rubber. 	C
144.	Bed with side Table and over bed trolley (local)	<p><u>Bed:</u></p> <ul style="list-style-type: none"> Over all dimension (LxWxH) 195cmx 85cmx 55cm (± 10) Four section beds with all welded enameled main frame constructed from rectangular section steel tube of 16SWG steel sheets. 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, The cranks have safety features when reach maximum position. Removable bed ends fitted with 10mm laminated plastic/backlite panels. Platform fitted with epoxy painted steel bars of 18 SWG steel. 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. Rubber bumpers at all four corners Four Mattress holders (2 at each side) With I V pole. Structure of the platform shall be smooth and seamless. Platform shall not contain cavities in order to avoid hideouts/safe areas for germs. All the corners of the platform shall be round and smooth. All the joints shall be made smooth. Polyester powder coated finishing. <p><u>Bed side Locker:</u></p> <ul style="list-style-type: none"> Overall size of locker 40cm width, 40cm depth, 80 cm height. Made up of SS 18 SWG. Top made of CP galvanized steel sheet, One drawer. One cabinet with space between the drawer and cabinet. 	C

		<ul style="list-style-type: none"> • Base made of 1” round/square pipe. • FINISH: Polyester powder coated finishing <p><u>Over Bed Table:</u></p> <ul style="list-style-type: none"> • Top made of Stainless steel. • 100cm, 100cm, 40cm • Mobile on four castors. <p><u>Side Railing:</u></p> <ul style="list-style-type: none"> • 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 point of fixing on the structure of bed) 	
145.	Beds with side table over bed trolley (imported)	<p><u>Bed:</u></p> <ul style="list-style-type: none"> • Over all dimension (LxWxH) 195cmx 85cmx 55cm or as per standard (± 10) • The Bed must facilitate a metal constructed; mattress surface covered with 4-section stainless steel. • Adjustable back rest and leg section by means of two independent cranks. • 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. • Rubber bumpers at all four corners • Mattress holders • With I V pole. • Structure of the platform shall be smooth and seamless. • Platform shall not contain cavities in order to avoid hideouts/safe areas for germs. • All the corners and joints of the platform shall be round and smooth. <p><u>Bed side Locker:</u></p> <ul style="list-style-type: none"> • Overall size of locker 40cm width, 40cm depth, 80 cm height or standard. • Frame made of stainless steel / abs material. • Top made of CP galvanized steel sheet / abs material. • One drawer. One cabinet <p><u>OVER BED TABLE:</u></p> <ul style="list-style-type: none"> • Top made of Stainless steel/ABS. • Height adjustable approx. 750mm to 1100 mm • Height may be raised or lowered by lifting release bar under the table top by hydraulic mechanism or spring. • Mobile on four castors. <p><u>Side Railing:</u></p> <ul style="list-style-type: none"> • 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 point of fixing on the structure of bed) 	C
146.	CO2 240 Cft Cylinder	<ul style="list-style-type: none"> • The cylinder must be of standard quality. • BOC/Equivalent testing certificate must be provided 	C

147.	CO2 48 Cft Cylinder	<ul style="list-style-type: none"> The cylinder must be of standard quality. BOC/Equivalent testing certificate must be provided 	C
148.	Couch for Ultrasound / Examination couch	<ul style="list-style-type: none"> Frame to be one piece welded mild steel powder coated. Headrest to have step less angle adjustment from horizontal to 75° 2" Mattress of 2.5 lbs./cft density with water proof sterilize able cover. Paper roll holder to be fitted at head end and suitable for paper rolls up to 510mm wide. Size Approx. 2000mm x 500mm with standard height. 	C
149.	Cylinder Trolley 240 CFT	<ul style="list-style-type: none"> Main structure made of 1" di acicular pipe. Mobile on two castors of 8" dia For carrying 240Cft cylinder with safety chain for holding cylinders 	C
150.	Cylinder Trolley 48CFT	<ul style="list-style-type: none"> Main structure made of 1" di acicular pipe. Mobile on two castors of 5" dia For carrying 48Cft cylinder With safety chain for holding cylinders 	C
151.	Dissection Table (small)/ Mortuary table	<ul style="list-style-type: none"> Approximate dimension; 4ft X2ft X 3ft (L x Wx H) It should made of stainless steel with a frame made of rugged torsion resistant stainless steel profile. It should have 4 solid rubber swivels locking castors Tabletop depth should be of approx. 15mm sloping toward the drain. It should made of stainless steel with a frame made of rugged torsion resistant stainless steel profile. It should have 4 solid rubber swivels locking castors Tabletop depth should be of approx. 15mm sloping toward the drain. On drain side 15 ltr container, hole in center for drainage. <p>Accessories:</p> <ul style="list-style-type: none"> Stainless steel Bucket 10 ltr Qty 2 Headrest Body support shim Foot rest 	C
152.	Dissection Table(large)/ Mortuary table	<ul style="list-style-type: none"> Approximate dimension; 6ft X2ft X 3ft (L x W x H) It should made of stainless steel with a frame made of rugged torsion resistant stainless steel profile. It should have 4 solid rubber swivels locking castors Tabletop depth should be of approx. 15mm sloping toward the drain. On drain side 15 ltr container, hole in center for drainage. <p>Accessories:</p> <ul style="list-style-type: none"> Stainless steel Bucket 10 ltr Qty 2 Headrest Body support shim Foot rest 	C
153.	Dressing	<ul style="list-style-type: none"> Constructed from stainless hollow pipe of 1 inch. 	C

	Trolley	<ul style="list-style-type: none"> • With two shelves made of stainless steel, on top and bottom with side guards. • Two stainless steel drawers under the top shelf. • Stainless steel bucket and bowl with holders. • Mobile on 100mm dia rubber castors. • Push handle for easy movement. • Size: (70 cm L*50 cm W *90 cm H) 	
154.	Drip stand	<ul style="list-style-type: none"> • Heavy Weight base mobile on 50 mm dia castors • Powder coated base and column with telescope adjustment. • 4 ports I/V rod of wire diameter 0.5 mm. 	C
155.	Dry Clean Trolley	<ul style="list-style-type: none"> • White cage trolley for transporting bulk linen. • Four rubber wheels. • Dimension 720mmx960mmx850mm • Weight 15kg. 	C
156.	Electric Cardiac Bed/ICU Bed (Imported)	<p><u>Motorized ,battery operated Cardiac /ICU bed bed with remote controller.</u></p> <ul style="list-style-type: none"> • The Bed must facilitate a metal constructed, mattress surface covered with 4-section abs Materials, ABS covered sub-frame. • The Sub-frame under the mattress surface must be covered with steel Material. • The Bed must have fold- Away ABS side rails on both sides of the bed, controlled separately. • The bed facilitates a hand control panel which must have adjustments of the following functions <ul style="list-style-type: none"> a) Backrest up-down b) Footrest up-down c) bed height up-down. • The bed must have electrical Trendelenburg and reverse Trendelenburg adjustment. Between $\pm 12^0$ by means of hand control unit. • Fowler, vascular, cardiac chair position and auto-contour positions by hand control unit. • The backrest section of the bed must be able to be adjusted between $0-70^0$ • The bed must be equipped with auto-regression system at back rest. <ul style="list-style-type: none"> ○ The footrest section must be able to be adjusted between $0-35^0$ or better. • Central brake system or lockable castors. • The bed must facilitate 4 IV pole sockets and head and footboards sockets made a plastic, located under the head and footboards. • The bed must facilitate 4 protective bumpers on external corners to prevent damage on the contact area during bed movements and transfer. • The bed must work on 220V/ 50 Hz have rechargeable battery backup for movement control. • There must be urine bag hangers on both sides of the bed. • Gradually adjustable footrest. • 5 inch dia casters two of them must be lockable diagonally. • The metal parts of the bed must be epoxy powder coated. 	C

		<ul style="list-style-type: none"> • The bed must have a safe load bearing capacity of 230 Kg or more. • The bed's height must be able to be adjusted between 40cm and 70cm. or better • Overall width 85 cm or more. • Overall length 195cm or more. • Side Railing/ side guard • The bed should have facility to take X-Ray of the patient over the bed (cassette holder). <p>Mattress should be provided with high density good quality according to the bed size, anti-bacterial, and water proof, shaped according to human body or bed position.</p>	
157.	Fire extinguisher 4 Kg	<p>Dry Chemical fire extinguishers extinguish the fire primarily by interrupting the chemical reaction of the fire triangle.</p> <ul style="list-style-type: none"> • Type: Wall mounted type. • Size: 4kg. • Dry chemical fire extinguishers that is effective on Class A, B, and C fires. • Class A fires are fires in ordinary combustibles such as wood, paper, cloth, rubber, and many plastics. • Class B fires are fires in flammable liquids such as gasoline, petroleum greases, tars, oils, oil-based paints, solvents, alcohols. Class B fires also include flammable gases such as propane and butane. • Class C fires are fires involving energized electrical equipment such as computers, servers, motors, transformers, and appliances. 	C
158.	Fire extinguisher 6 Kg	<p>Dry Chemical fire extinguishers extinguish the fire primarily by interrupting the chemical reaction of the fire triangle.</p> <ul style="list-style-type: none"> • Type: Wall mounted type. • Size: 6kg. • Dry chemical fire extinguishers that is effective on Class A, B, and C fires. • Class A fires are fires in ordinary combustibles such as wood, paper, cloth, rubber, and many plastics. • Class B fires are fires in flammable liquids such as gasoline, petroleum greases, tars, oils, oil-based paints, solvents, alcohols. Class B fires also include flammable gases such as propane and butane. • Class C fires are fires involving energized electrical equipment such as computers, servers, motors, transformers, and appliances. 	C
159.	Fire extinguisher 9 Kg	<p>Dry Chemical fire extinguishers extinguish the fire primarily by interrupting the chemical reaction of the fire triangle.</p> <ul style="list-style-type: none"> • Type: Wall mounted type. • Size: 9kg. • Dry chemical fire extinguishers that is effective on Class A, B, and C fires. • Class A fires are fires in ordinary combustibles such as wood, paper, cloth, rubber, and many plastics. 	C

		<ul style="list-style-type: none"> Class B fires are fires in flammable liquids such as gasoline, petroleum greases, tars, oils, oil-based paints, solvents, alcohols. Class B fires also include flammable gases such as propane and butane. Class C fires are fires involving energized electrical equipment such as computers, servers, motors, transformers, and appliances. 	
160.	Folding Screen	<ul style="list-style-type: none"> Frame in four parts constructed from fully plastic-coated M.S. hollow tubular pipe 1” dia. All frames fixed together with Steel universal joints for easy movement of each part. Curtains fitted with spring loaded rods, Mobile on eight, castors of 75 mm dia. Curtain of wash and wear polyester cloth/ plastic cloth in variety of colors. 	C
161.	Gynae examination couch	<ul style="list-style-type: none"> Couch top made in 3 sections. Leg section removable. Backrest adjustable with friction clutch With hand grips on both the sides. Cushioned with Rexene and foam mattress. Sliding stainless steel receptacle mounted under the hip area, Complete with pair of Lithotomy poles and tying strips. 	C
162.	Instrument Trolley	<ul style="list-style-type: none"> Frame constructed of stainless-steel hollow pipe, Complete with two Stainless steel trays having open space between it. Both trays provided with reinforcement as side guards for safety. Mobile on 50mm dia, twin wheels. Size(60x90)cm 	C
163.	Manual Cardiac Bed/ICU Bed	<p>Hydraulic Hospital Bed suitable for use in intensive / coronary care units.</p> <p><u>Feature:</u></p> <ul style="list-style-type: none"> Adult Intensive Care bed with head and foot panels Height adjustment with foot pedals 40cm to 75cm The bed must have Trendelenburg and reverse Trendelenburg adjustment. Between +120 by means of hand control unit. The backrest section of the bed must be able to be adjusted between 0-700 The bed must be equipped with auto-regression system at back rest. The footrest section must be able to be adjusted between 0-350 or more. Central brake system or lockable castors. The bed should have facility to take X-Ray of the patient over the bed (cassette holder). Back plate and knee rise by gas shock mechanism to make a fowler position. 5 inch dia castors, foot operated central lock for all castors. 	C

		<ul style="list-style-type: none"> • Two mattress holders on each side. • Structure of the platform shall be smooth and seamless. • Platform shall not contain cavities in order to avoid hideouts/safe areas for germs. • All the corners of the platform shall be round and smooth. • Size: Length 195 cm or more • Width 85 cm or more • Accessories: • Bed fitted patient lifting pole. • I.V Rod • To be provided with CPR board. <p><u>Side Railing:</u></p> <ul style="list-style-type: none"> • 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 point of fixing on the frame of the bed). • Mattress should be provided with high density good quality according to the bed size, anti-bacterial, and water proof, shaped according to human body or bed position. 	
164.	Nitrous Oxide 240 Cft cylinder	<ul style="list-style-type: none"> • The cylinder must be of standard quality. • BOC/Equivalent testing certificate must be provided 	C
165.	Nitrous Oxide 48 Cft cylinder	<ul style="list-style-type: none"> • The cylinder must be of standard quality. • BOC/Equivalent testing certificate must be provided 	C
166.	Orthopedic Traction Bed	<ul style="list-style-type: none"> • Head & Foot Panels: Elegant High • Size: L195cm×W85cm or more • Height:53cm • Functions: Two Functions • Movements & Controls: • Back Lifting: Manual • Quality Molded Panels • Top: Four Sections • Framework: Stainless Steel Panels • Stainless Steel Balkan Beam • Frame & Pulley Attachment • and Patient Support Lifting Pole • Head & Foot Panels: Elegant High • Color: Powder Coated <p><u>Bed:</u></p> <ul style="list-style-type: none"> • Over all dimension (LXWXH) 195cmx 85cmx 55cm • Four section beds with all welded enameled main frame constructed from rectangular section steel tube of 16SWG steel sheets. • 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. • Removable bed ends fitted with 10mm laminated plastic panels. • Platform fitted with epoxy painted steel bars of 18 SWG steel. • The bed is mounted on double ball bearing, swivel castors of non- tin 	C

		<p>and weather proof rubber. Two fixed at head end and two swiveling with in dependent breaks at foot end.</p> <ul style="list-style-type: none"> • Rubber bumpers at all four corners • Four Mattress holders (2 at each side) • With I V pole. • Structure of the platform shall be smooth and seamless. • Platform shall not contain cavities in order to avoid hideouts/safe areas for germs. • All the corners of the platform shall be round and smooth. • All the joints shall be made smooth. • With quality molded panels. • Stainless steel Balkan beam. • With frame and pulley attachment • With patient support lifting polls • Complete with all orthopedic attachments and accessories. <p><u>Side Railing:</u></p> <ul style="list-style-type: none"> • 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 point of fixing structure of bed) 	
167.	Oxygen 240 Cft cylinder	<ul style="list-style-type: none"> • The cylinder must be of standard quality. • BOC/Equivalent testing certificate must be provided 	C
168.	Oxygen 48 Cft cylinder	<ul style="list-style-type: none"> • The cylinder must be of standard quality. • BOC/Equivalent testing certificate must be provided 	C
169.	Patient electric bed (Imported)	<p><u>Motorized ,battery operated patient bed with remote controller.</u></p> <ul style="list-style-type: none"> • ABS head & foot boards can be removable. • Aluminum alloy side rail, 6-staff, foldable type with safe lock • Bed sheet top made from perforated steel, epoxy powder coated and baked finish. • Bed framework made from mild steel ERW rectangular tubes. • 5 inch covered casters with brake • The bed must have a safe load bearing capacity of 230 Kg or more. • Rechargeable built-in battery with charger input power 220VAC, 50Hz <p><u>Approximate dimension</u></p> <ul style="list-style-type: none"> • Overall length 195cm or more • Overall width 85cm or more • Minimum height 45cm • Maximum height 75cm • Back section up/down:0-70° • Knee section up/down:0-35° <p><u>Standard accessories</u></p> <ul style="list-style-type: none"> • Head and foot board • Beside rail • Hand set • Drip hole 1 no. of IV rod • Urine hook 	C

		<ul style="list-style-type: none"> Mattress should be provided with high density good quality according to the bed size, anti-bacterial, and water proof, shaped according to human body or bed position. 	
170.	Patient Trolley	<ul style="list-style-type: none"> Single crank, Rubber bumper guards on all sides, Mobile on 23 cm dia rubber castors, Removable tarpaulin / Rexene stretched detachable stretcher. Provided with oxygen cylinder holder, Utility tray I.V pole. Safety side guards with revolving latch for up & down adjustment. Overall Size: length 5 ft. 4", width: 2 ft., adjustable height: maximum 2 ft. 6". 	C
171.	Revolving steel stool	<ul style="list-style-type: none"> Stool with 16 SWG stainless steel structure and seat of diameter 300mm. Height adjustable by simple spun mechanism. Height adjustment not less than 53cm to 68cm. 	C
172.	Stretcher (Imported)	<ul style="list-style-type: none"> Lenth: 6 ft or more Width: 2 ft or more Made of stainless steel. 4 rubber castors having 23 cm dia. Castors should Lockable Top made of stainless steel 	C
173.	Stretcher (Local)	<ul style="list-style-type: none"> Lenth: 6 ft or more Width: 2 ft or more Made of stainless steel. 4 rubber castors having 23 cm dia. Castors should Lockable Top made of stainless steel 	C
174.	Surgeon revolving steel stool	<ul style="list-style-type: none"> Stool with 16 SWG stainless steel structure and seat of diameter 300mm. Height adjustable by simple spun mechanism. Height adjustment not less than 53cm to 68cm. Mobile on 4 castors. Sample to be approved. 	C
175.	Wheel Chair	<ul style="list-style-type: none"> Non folding wheel chair, 2 big wheels and 2 small wheels Should have footrest/ Foot support. With safety belt. Should have backrest/ Lumber support. Comfortably cushioned seat width 38 x 43cm, water proof covered. Sample to be approved. 	C
176.	Adult weighing scale	<ul style="list-style-type: none"> Scale to have low level platform finished with non-slip cover, measuring Dial to be fitted at waist height steel yard arm. Capacity: 0 kg -150kg or better. Fitted with imperial and metric height measuring rod. 	D

177.	Ambo bag Adult	<ul style="list-style-type: none"> • Silicon Resuscitation Bag with adult face mask sizes 3, 4, 5 & Airway size 3, 4, 5 with E2 valve and fully autoclavable. • Reservoir Bag volume 2Liter or more. • Oxygen Reservoir Volume approximately 2500 ml for adult. • Tidal maximum volume: approximately 1000ml for adult. • 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. • To be able to connect to an oxygen source up to 100%. Unit to be supplied with a carrying case. • Re-usable and must be autoclavable 	D
178.	Ambo bag Paeds	<ul style="list-style-type: none"> • Silicon Resuscitation Bag with infant / child face mask sizes 00, 0, 1, 2 & airway size 0, 1, 2 with E2 valve and fully autoclavable. • The resuscitator to meet with all requirements lay down by international standards. • Reservoir Bag volume approx. 600ml. • Oxygen Reservoir Volume approx. 2500ml for adult and child • Tidal maximum volume: approx. 200ml for infant • Unit to operate in all climatic conditions and not to be dependent upon a power supply. • To be able to connect to an oxygen supply up to 100%. • The resuscitator must be able to ventilate through a mask and/or endo tracheal tube. • Re-usable and must be autoclavable 	D
179.	Analytical/Electronic Balance	<ul style="list-style-type: none"> • The balance to weigh up to 400g in 1mg increments. • The balance to be small, flat, and conveniently housed in portable lightweight easy to clean housing. • To have a 7-digit luminous display with overload protection. • To come complete with data input and output terminals and a printout terminal 	D
180.	Attendant bench	<ul style="list-style-type: none"> • Benches without back support <p>Wood Work:</p> <ul style="list-style-type: none"> • Top Strips 06 Nos of size 1200mm x 50mm x 20mm • Strips made of solid shesham wood with 8 to 10 % moisture with termite treatment. • Complete high-quality polish and lacquers for a long lasting shine. • Shesham finished with 30 % gloss with 1 base 1 top coat. <p>Steel Frame Structure</p> <ul style="list-style-type: none"> • Steel frame made of 18 gauge mild steel square pipe structure consist of 2 Nos top long rails. • Frame size 1175mm x 25mm x 25 mm. • Legs 04 Nos size 450mm x 25 mm x 25mm • Center support rail 01 of size 1175 mm x 25 mm x 25 mm • Rubber shoes 04 of best quality. 	
181.	Baby Anesthesia Set	<ul style="list-style-type: none"> • Complete accessories anesthesia set for children. • IV Canola's different sizes • Facemasks different sizes re-usable • Airways different sizes re-usable 	D

		<ul style="list-style-type: none"> • Pediatric circuit re-usable Ambo bag 	
182.	Baby Resuscitation Apparatus	<p>Complete kit in a carry bag including:</p> <p>Infant Resuscitator: -</p> <ul style="list-style-type: none"> • Silicon Resuscitation Bag with infant face mask sizes 00 & 01 with non-re-breathing valve with 40cm of H2O pressure release • Fully Autoclavable. • Reservoir Bag volume 250ml • 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. • To be able to connect to an oxygen source up to 100%. • 1.5-meter O2 tubing • Foot Suction: • 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) • Scratch proof powder coated frame. • Laryngoscope: • Fiber-optic laryngoscope with stainless steel straight blades of size 0 & 1 with penlight handle • Airways: • Silicone, Autoclavable & reusable in sizes 000, 00 & 0 • Oxygen Cylinder: • Portable Oxygen Cylinder 1.5 lit complete with oxygen regulator and tubing. • Complete kit in one carrying case. 	D
183.	Baby weighing scale	<ul style="list-style-type: none"> • Scales to be highly accurate and stable. • Touch controls with splash proof key board. • Removable baby weighing pan. • Automatic hold, slow and tare controls. • Capacity: 0 kg to 30kg or better. 	D
184.	Bed Sheet	<ul style="list-style-type: none"> • Made of best quality cotton. • single standard size:- 60" x 100" • Color: White 	D
185.	Binocular Magnifier	<ul style="list-style-type: none"> • Binocular Head band • W/Optical Grade Lens plate • Magnifier 2 to 4 times. 	D
186.	Blanket	<ul style="list-style-type: none"> • Best quality, Double ply, camel color, size: 60" x 90" 	D
187.	Blood Screening Counter	<ul style="list-style-type: none"> • 8 keys laboratory counter with totalizer • To facilitate leukocyte differential count including basophils, eosinophils, lymphocytes, monocytes, myelocytes, segmented and band (neutrophils) • Each key to register a unit corresponding to the identified leukocyte. • After having counted 100 units of leukocytes a bell should sound and the percentage of every type of leukocytes can be directly read. • Hundred steps for one thousand. 	D

188.	Box for disposal of sharps	<ul style="list-style-type: none"> • Material: Plastic • Capacity: 15 Litter or more • Semi translucent lid • Suitable for hazardous items such as syringes, broken blades, hooks, bottles and glass shards 	D
189.	BP apparatus with stand	<ul style="list-style-type: none"> • Constructed from shatter resistant materials fully protected plastic manometer tube with clear reading scale, range 0 to 300 mm Hg. • Integral mercury reservoir. • Spring coil tube with bulb. (Pump). • Pediatric and adult cloth cuff with Velcro fastening cuff holder. • Unit mounted on stable 4 to 5 castor mild steel base. 	D
190.	BP mercury desktop with paed's and adult cuff	<ul style="list-style-type: none"> • Sphygmomanometer in lightweight case. • Recessed plastic manometer tube range 0-300mm Hg with shatter proof reservoir. • Velcro fastening cuff for adult and Paeds. • Provision for storage for bulb, valve tubing and cuffs. 	D
191.	BP Set Wall Mounted	<u>Sphygmomanometer Mercurial Wall Mounted</u> <ul style="list-style-type: none"> • Sphygmomanometer constructed from shatter proof materials. • Fully protected plastic manometer with clear reading scale, range 0-300mmHg to be mounted on wall. • Integral mercury reservoir, spring coil tube, bulb, valve, Velcro fastening cuff adult & Pediatric. 	D
192.	Breast pumps	<ul style="list-style-type: none"> • Made of best quality plastic material. 	D
193.	Centrifuge Tubes (Glass)	<ul style="list-style-type: none"> • 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. • Branded 	D
194.	Centrifuge Tubes (Plastic)	<ul style="list-style-type: none"> • 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. • Branded. 	D
195.	Clamps	<ul style="list-style-type: none"> • For hanging of films, good quality 	D
196.	Containers for sputum	<ul style="list-style-type: none"> • Sample based 	D
197.	Containers for Urine	<ul style="list-style-type: none"> • Sample based 	D
198.	Cover Slip	<ul style="list-style-type: none"> • From good quality glass material, ¹ • Size:- 25.4x76.2mm • 1.1.2mm thick 	D
199.	Cupboard Steel Large	<ul style="list-style-type: none"> • 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) • Sample to be approved 	D
200.	DLC Counter	<ul style="list-style-type: none"> • Size: Standard 8keys. • Heavy duty, resistant plastic housing. • Dual reset knob. • Signal bell when 100 cells counted 	D

201.	Ear Syringe	<ul style="list-style-type: none"> • Ear Syringe for cleaning of ear • Stainless steel made. • Capacity: 10 ml or more. 	D
202.	ENT Diagnostic Set (adult and Paeds)	<ul style="list-style-type: none"> • Adult & Paeds Diagnostic set comprising with 3 standard specula. • With ophthalmoscope head. • Battery Handle with chargeable batteries • Nasal speculum, • Laryngeal stem to take tongue depressor, • Laryngeal or post nasal mirror • Antrum sheath. • Large handle and two spare lamps. • All to be supplied complete in plastic covered case. 	D
203.	ESR Pipettes	<ul style="list-style-type: none"> • Made from Pyrex with graduated scale. • Branded 	D
204.	ESR stand for five Tube	<ul style="list-style-type: none"> • Good quality , washable, quality material & can hold five tubes 	D
205.	Examination torch	<ul style="list-style-type: none"> • Good quality, Water resistant ,runtime 1 hour, weight 35 g without battery ,head diameter 14mm. 	D
206.	FSP Pipette	<ul style="list-style-type: none"> • Good quality , washable, quality material • Branded 	D
207.	Glass pipettes (different sizes)	<ul style="list-style-type: none"> • Made from durable material with graduated scale. • Branded 	D
208.	Glass slide	<ul style="list-style-type: none"> • From good quality glass material branded 	D
209.	Glass Wares	<ul style="list-style-type: none"> • From good quality glass material branded 	D
210.	Haemo cytometer	<ul style="list-style-type: none"> • Manually operated, complete set of counting chambers, • Cover slips, WBC pipette, RBC Pipettes (Imported). 	D
211.	Hangers Various Size	<ul style="list-style-type: none"> • Hanger to be manufactured from stainless steel and to • Have a clip at each end to keep film taut. 	D
212.	Immersion Rod	<ul style="list-style-type: none"> • For warming of developer, good quality 	D
213.	Jester (1 to 10 ul) Adjustable	<ul style="list-style-type: none"> • Branded • Good Quality 	D
214.	Jester (10 to 100ul) Adjustable	<ul style="list-style-type: none"> • Branded • Good Quality 	D
215.	Jester (100 to 1000ul) Adjustable	<ul style="list-style-type: none"> • Branded • Good Quality 	D
216.	Jester Fix 1000ul	<ul style="list-style-type: none"> • Branded • Good Quality 	D
217.	Jester Fix 100ul	<ul style="list-style-type: none"> • Branded • Good Quality 	D

218.	Jester Fix 10ul	<ul style="list-style-type: none"> • Branded • Good quality 	D
219.	Jester Fix 20ul	<ul style="list-style-type: none"> • Branded • Good Quality 	D
220.	Jester Fix 500ul	<ul style="list-style-type: none"> • Branded • Good Quality 	D
221.	Jester Fix 50ul	<ul style="list-style-type: none"> • Branded • Good Quality 	D
222.	Jester Fix 5ul	<ul style="list-style-type: none"> • Branded • Good Quality 	D
223.	Lancets	<ul style="list-style-type: none"> • From good quality material. • Branded 	D
224.	Laryngeal Face Masks (Small, Medium & Large sizes)	<ul style="list-style-type: none"> • Each set have Sizes; Large, medium & small. • Manufactured from clear, non-toxic implantation tested autoclavable PVC. • Integra/nylon bite block • Imported 	D
225.	Lead Apron	<ul style="list-style-type: none"> • Best quality, imported. • Flexible lead rubber in tear resistant plastic cover • Sleeveless, half-length at back • Fastening with crossed elastic straps with Velcro end • 0.5mm lead thickness for small, medium and large sizes 	D
226.	Lead Glass Shield	<ul style="list-style-type: none"> • 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 • Easily moveable to all sides on at least 2 castors on each part. • Lead glass size 200x200mm, thickness 2mm. 	D
227.	Lead Gloves	<ul style="list-style-type: none"> • Best quality, imported. • Flexible lead rubber in tear resistant plastic cover • 0.2mm lead thickness inside gloves. 	D
228.	Lens Set (Plus 78 D)	<ul style="list-style-type: none"> • Three mirror Universal lens laser coated. • Standard 78D lens laser coated. • Standard 90D lens laser coated. • Super field NC lens laser coated. • 20D Indirect ophthalmoscopy lens laser coated 	D
229.	Manual ESR System	<p>E.S.R. APPARATUS WESTERGREENS TYPE BLOOD</p> <ul style="list-style-type: none"> • 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 	D
230.	Manual Film Processor	<ul style="list-style-type: none"> • 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. • Overall dimensions: 570x650x825 mm high with a splash • Back 230mm high. • Developing and fixing tanks 3 gallon capacity each. 	D
231.	Manual Suction	<ul style="list-style-type: none"> • Foot operated suction machine with heavy duty piston. 	D

	Apparatus for ICU	<ul style="list-style-type: none"> Pressure gage, Suction Jar 1000ml with pipe 2 meters long and suction nozzle. 	
232.	Mattress Foam with Raxine Cover	<ul style="list-style-type: none"> Size: 6 ½' x 3' x 4'' with Raxine cover, good quality Branded 	D
233.	Mattress Foam with Raxine Cover Medical Grade	<ul style="list-style-type: none"> Size: 6 ½' x 3' x 4'' with Raxine cover, Medical Grade good quality Branded Adjustable according to the patient / bed position. 	D
234.	Measuring Stand Infant	<ul style="list-style-type: none"> Baby height measuring board for children upto 2 years age. Smooth and precise easy glide foot piece for accuracy of measurement. Head piece to be perpendicular to base with cut-out handle for increase mobility. Measuring range 21 to 99 cm. 	D
235.	Medicine (Iron Rack) 8x6x2	<ul style="list-style-type: none"> Frame: 18 gauge steel powder coated with four shelves. Size 4 ftx 6 ftx 2 ft (W x H x D) Sample to be approved 	
236.	Micropipette Digital Different size	<ul style="list-style-type: none"> Standard sizes Branded 	D
237.	OPD chairs S.S	<ul style="list-style-type: none"> 3-seater chairs (Steel) fixed / removable. With seating area approximately 51 cm x 50 cm. With silver enameled finished. The structure may be able to be fixed on the floor / replaceable. Imported, Good Quality. Minimum weight of OPD chair must be 34kg. 	
238.	ORS feeding containers and spoons	<ul style="list-style-type: none"> Good quality 	D
239.	ORS measuring jug	<ul style="list-style-type: none"> Good quality 	D
240.	OT Caps	<ul style="list-style-type: none"> Made of best quality , Color: Green 	D
241.	OT Gown	<ul style="list-style-type: none"> Operation Gown Markeen Cloth, size: Small, Medium and Large 	D
242.	OT Sheet	<ul style="list-style-type: none"> Made of best quality , Color: Green 	D
243.	OT Shoes	<ul style="list-style-type: none"> Made of best quality, Slipper plastic leather. 	D
244.	Otoscope Rechargeable	<ul style="list-style-type: none"> Diagnostic Set Battery Handle with chargeable batteries Charging holder with the transformer Otoscope head with halogen bulb One each reusable ear speculum sizes: 2, 3, 4 and 5mm Five each disposable ear specula 2.5 and 4.0mm One magnifying glass for operation With spare bulb 	D

245.	Oxygen Cylinder Key	<ul style="list-style-type: none"> • Good quality Oxygen Cylinder Key for 240 & 48 CFT cylinders 	D
246.	Oxygen Flow Meter	<ul style="list-style-type: none"> • Direct fitted to the Outlet BOC/Equivalent, included with the Humidifier. • Nickel-plated brass base and body • Clear shroud • Expanded lower scale 0-5Lpm 	D
247.	Oxygen Flow Meter with humidifier	<ul style="list-style-type: none"> • Direct fitted to the Outlet BOC/Equivalent, included with the Humidifier. • Nickel-plated brass base and body • Clear shroud • Expanded lower scale 0-5Lpm 	D
248.	Oxygen gauge	<ul style="list-style-type: none"> • Complete with regulator, gauge, and standard accessories. 	D
249.	Peak Flow Meter	<ul style="list-style-type: none"> • Performance Date • Accuracy: $\pm 10\%$ or 20 L/min whichever is greater. • Repeatability: $< 5\%$ or 10 L/m whichever is greater. • Inter device Variability: $< 10\%$ or 20 L/min whichever is greater. • Materials • Main Body: Impact-resistant ABS plastic • Cover and Handle: High-density poly propylene. • Scale: Hot-stamped, alcohol resistant. • Full measurement Range: 50 to 810 L/min or better. • With increment: 10L/min to 50L/min. 	D
250.	Pediatric Circuit	<ul style="list-style-type: none"> • Reusable and good quality circuit, Imported. • Manufactured from clear, non-toxic implantation tested autoclavable PVC 	D
251.	Pillow with cover	<ul style="list-style-type: none"> • Standard size of best quality polythene Size: 24"x 15" • Along with pillow cover: Size: 26" x 17", White Latha 	D
252.	Pipette stands	<ul style="list-style-type: none"> • Standard size stand made from stainless steel. Branded 	D
253.	Plastic Apron	<ul style="list-style-type: none"> • For dark room water proof, good quality, imported. 	D
254.	Proctoscope for adult & child	<ul style="list-style-type: none"> • Manufacturer's mark must be indicated on all instruments. 	D
255.	Randall Baker Face Mask all sizes set	<ul style="list-style-type: none"> • Each set have Sizes; Large, medium & small. • Manufactured from clear, non-toxic implantation tested autoclavable PVC. • Integra/nylon bite block • Imported 	D
256.	Reagent Bottles	<ul style="list-style-type: none"> • With good quality material. • Branded 	D
257.	Refraction Box	<ul style="list-style-type: none"> • 35-Pairs-204 PCS and Universal Frame in Wooden carrying case. • Spheres: ± 0.12 to ± 20.00 • Cylinders: ± 0.25 to ± 3.00 • Firms: $\frac{1}{2}$ to 6 • Auxiliaries: Blue, Red, Green, Brown, Plane (2pcs)-glass. • Occluder, Pinhole 0.5, 1.0, 1.5mm – leach Slit Disc 0.5, 1.0mm-leach. 	D

258.	Safe Light for Dark Room	<ul style="list-style-type: none"> • Wall mounted lamp for all blue and green sensitive X-Ray Films. • With two spare lamps (15 watts). • Power requirement 220V/50Hz. 	D
259.	Sahli Hemoglobin meter	<ul style="list-style-type: none"> • Manual Hemoglobin meter with Hb pipette, Hb tube, bottle, glass rod, scanner for Hb Measuring. • 	D
260.	Sam Circuit all sizes	<ul style="list-style-type: none"> • Good Quality 	D
261.	Steel Almirah for Medicines	<ul style="list-style-type: none"> • 18-gauge steel, powder coated. • With 4 shelves (Five Compartment). • Size 4ft x 6ft x 1.5ft (WxHxD) • 02 doors having transparent glass with heavy duty lock mechanism and best quality handle. 	D
262.	Steel File cabinet	<ul style="list-style-type: none"> • 18-gauge steel, filing cabinet with three drawers each 450mm height with railing handles, locks and 100mm high pedestal. • Including power coating with good surface finish • Size 400 x 750mm x 1400mm 	D
263.	Stethoscope	<ul style="list-style-type: none"> • Lightweight aluminum/ S S adult chest piece construction. • Adjustable chrome binaural. • Flexible one piece molded 'Y' PVC tubing. • Ergonomic plastic ear tips. 	D
264.	Stethoscope Nursery	<ul style="list-style-type: none"> • Lightweight aluminum/S S Pediatric chest piece construction. • Adjustable chrome binaural. • Flexible one piece molded 'Y' PVC tubing. • Ergonomic plastic ear tips. 	D
265.	Stylets Adult / Paeds	<ul style="list-style-type: none"> • Reusable, autoclavable and good quality, imported. • Nylon hard plastic PVC, different sizes (3, 4, 5, 6 & 7) 	D
266.	Table Cover large	<ul style="list-style-type: none"> • Made of best quality, Size: 54" x 72" 	D
267.	Table Cover small	<ul style="list-style-type: none"> • Made of best quality, Size: 48" x 54" 	D
268.	Test Tube holder	<ul style="list-style-type: none"> • Best quality Stainless steel holder. 	D
269.	Test Tube Racks Stainless Steel	<ul style="list-style-type: none"> • Good quality, washable, stainless steel rack and can hold 12 tubes. 	D
270.	Test Tubes	<ul style="list-style-type: none"> • Good quality glass material 	D
271.	Test Tubes Racks wooden	<ul style="list-style-type: none"> • Good quality and finish wood and can hold 12 test tubes. 	D
272.	Thermal Gun	<ul style="list-style-type: none"> • Medical Grade thermal gun • This advanced non-contact infrared thermometer uses an infrared detector to detect body temperature from the temple for adults & children and can be used both at home and hospitals. • Touchless thermometer for adults and kids adopts LCD digital display. • Temperature measurement in centigrade C and Fahrenheit F. 	D
273.	Tonometer	<ul style="list-style-type: none"> • Application tonometer with two prisms and weights complete in 	D

		case.	
274.	Vaccine carrier and ice pack	<ul style="list-style-type: none"> • Vaccine storage capacity: 3-4 liters. • Lid type & fixing: Self-Gripping Strips. • External materials: Polyethylene/Polyester. • Internal lining materials: Polyethylene/Polyester. • Insulation materials: Airliner/Polyurethane • Insulation thickness: 3.4 cm minimum. • Number of icepacks required: 8. • Cool life without openings: 30 hours at 43°C or better. 	D
275.	Vision testing drum	<ul style="list-style-type: none"> • Testing box to be wall mounted must be supplied with the following panels. • English Alphabets 1No • Illiterate “E” 1No • Illiterate “C” 1No • Children’s 1No • To be manually rotated. 	D
276.	Waste bin sets (Comprising 3 bins of White, Yellow and Red Color each measuring)	<ul style="list-style-type: none"> • Material: Polyvinyl chloride (PVC) • Foot operated lid, open topwards. • Volume: 45 liters. • PVC molded to be used for lid hinges. • Every bin will be labeled in legible writing “ Only for Hospital waste and / or additional text. <ol style="list-style-type: none"> 1. Waste bin Yellow. 2. Waste bin Red. 3. Waste bin White. 	
277.	Wet Film Stand	<ul style="list-style-type: none"> • For drying of films, • Wet films stand for holding wet films to accommodate up to 10 Nos 14”x17” size, after manual film processing. 	D
278.	Wheel Chair Folding type	<ul style="list-style-type: none"> • Folding Wheel Chair. • Detachable Desk Armrests, • Swinging Detachable Elevating (Adjustable height) leg rests. • Footsteps made of Aluminum. • With Safety belt. • Seat width 38 x 43cm, • Made of high quality leather to with stand human load 	D
279.	Wire Loops	<ul style="list-style-type: none"> • Good quality material 	D
280.	Wooden Boxes	<ul style="list-style-type: none"> • Good quality material 	D
281.	X-Ray Cassette 10 x 12 with Green screen.	<ul style="list-style-type: none"> • Cassettes with H.S type intensifying screen. With green screen for selection. 	D
282.	X-Ray Cassette 12 x 15 with Green screen	<ul style="list-style-type: none"> • Cassettes with H.S type intensifying screen. With green screen for selection. 	D
283.	X-Ray Cassette 14 x 17 with Green screen.	<ul style="list-style-type: none"> • Cassettes with H.S type intensifying screen. With green screen for selection. 	D

284.	X-Ray Cassette 8 x 10 with Green screen.	Cassettes with H.S type intensifying screen. With green screen for selection.	D
285.	X-Ray Illuminator Double Table Top/ X-Ray Viewer / X-Ray Viewing Box	<ul style="list-style-type: none"> • X-Ray Film Viewer with following features. • Table Top • Housing made of epoxy-coated steel. • Viewing area for two 14"x17"film. • Light intensity more than 6000 Lux or more. • With light intensity control. • Suitable for wall mounted and table use. • Film clamps and hooks for holding wet films. • Power requirements 220V,50Hz. 	D
286.	AC 1 tone Split unit inverter type	<ul style="list-style-type: none"> • AC 1 tone Split unit inverter type • Airflow: 4-Way Air • Cooling effect: Heat and Cool Function • Energy efficiency class: 60% Electricity saving. • Noise level: Ultra Low Noise Control • Type: Wall Mounted • Gold fin Evaporator and condenser • Auto clean • R410 Eco friendly refrigerant • With Complete Installation 	E
287.	AC 1.5 tone Split unit inverter type	<ul style="list-style-type: none"> • AC 1.5 tones Split unit inverter type • Airflow: 4-Way Air • Cooling effect: Heat and Cool Function • Energy efficiency class: 60% Electricity saving. • Noise level: Ultra Low Noise Control • Type: Wall Mounted • Gold fin Evaporator and condenser • Auto clean • R410 Eco friendly refrigerant • With Complete Installation 	E
288.	AC 2 tones Split unit inverter type	<ul style="list-style-type: none"> • AC 2 tones Split unit inverter type • Airflow: 4-Way Air • Cooling effect: Heat and Cool Function • Energy efficiency class: 60% Electricity saving. • Noise level: Ultra Low Noise Control • Type: Wall Mounted • Gold fin Evaporator and condenser • Auto clean • R410 Eco friendly refrigerant • With Complete Installation 	E
289.	Door Air Curtain	<ul style="list-style-type: none"> • Power Supply: 220 ~ 230 / 50 Hz • Airflow volume: 1200l/s or better • Airflow velocity: 14m/s or better • Max install Hight: 3.0 m 	E

		<ul style="list-style-type: none"> • Sound Level: ≤61db • With complete installation 	
290.	Electric Geysers 10 Gallons	<ul style="list-style-type: none"> • Branded Electric Geyser 10 Gallon or more • Storage Type • Thermostat for Temperature Control • Brand and Model Must be mentioned. • With Complete Installation 	E
291.	Electric Geysers 15 Gallons	<ul style="list-style-type: none"> • Electric Geyser 15 Gallon or more • Storage Type • Thermostat for Temperature Control • Brand and Model Must be mentioned. • With Complete Installation 	E
292.	Electric Water Cooler 40 Litters with Filter	<ul style="list-style-type: none"> • Branded Electric Water Cooler 40 Litters or more • Stainless Steel Tank • To be installed with 3-part Filtration unit • With Complete Installation 	E
293.	Electric Water Cooler 60 Litters with Filter	<ul style="list-style-type: none"> • Branded Electric Water Cooler 60 Litters or more • Stainless Steel Tank • To be installed with 3-part Filtration unit • With Complete Installation 	E
294.	Electric Water Cooler 80 Litters with Filter	<ul style="list-style-type: none"> • Branded Electric Water Cooler 80 Litters or more • Stainless Steel Tank • To be installed with 3-part Filtration unit • With Complete Installation 	E
295.	Gas Geyser 30 Gallon	<ul style="list-style-type: none"> • Branded Gas Geyser 30 Gallons or more with cone • With thick glass wool to keep water Hot • With complete installation 	E
296.	Gas Geyser 50 Gallon	<ul style="list-style-type: none"> • Branded Gas Geyser 30 Gallons or more with cone • With thick glass wool to keep water Hot • With complete installation 	E
297.	ILR/Deep Freezer	<ul style="list-style-type: none"> • Branded 16Cft, Double Door (Freezer & Fridge) with Racks and Baskets 	E
298.	Refrigerator 12 CFT	<ul style="list-style-type: none"> • Branded Double door,12 Cft Refrigerator. • With Complete Installation 	E
299.	Refrigerator 14CFT	<ul style="list-style-type: none"> • Branded Double door,14 Cft Refrigerator. • With Complete Installation 	E
300.	Refrigerator 18 CFT	<ul style="list-style-type: none"> • Branded Double door,18 Cft Refrigerator. • With Complete Installation 	E
301.	Photocopier	<p>Desktop type photocopier machine</p> <ul style="list-style-type: none"> • Display: TFT/LCD display • All in one function: Print, Scan, Photocopy • Speed: 30 ppm or better • Paper capacity: 500 sheets tray • Number of papers tray: 2 trays + 1 by pass • Warm up time: 12 second or less for warm up the machine • Document feeder: RADF/DADF/AFD 	E

		<ul style="list-style-type: none"> • Memory: 1 GB or above • Power: 200-240 v • Connectivity: LAN / USB Stabilizer: <ul style="list-style-type: none"> • With Servo motor stabilizer. 	
302.	Printer	<ul style="list-style-type: none"> • Print Quality: 1200 x 1200 or higher. • Print Speed: 20 ppm or higher. • Print Technology: LaserJet • Processor: 1.2 GHz or higher • Input Tray Capacity: 500 sheets or higher • Output Tray Capacity: 250 sheets or higher • Media Support: A4, A4-R, etc. 	E
303.	Scanner	<ul style="list-style-type: none"> • Resolution: 600x600 dpi (ADF)& 1200 x 1200 dpi (Flatbed) • Automatic document feeder capacity: 50 sheets • Duplex ADF Scanning: Yes • Scan Size: 8.5” x 14: or higher • Scan Speed: 30 ppm or higher • Processor: 550 MHz or Higher 	E
304.	Computer	Branded Computer CPU: <ul style="list-style-type: none"> • Branded CPU • CPU Core i 7 Processor: 3.4 GHz (10th generation) • 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 • Memory Ram Size: 8 Giga Byte, supported up to 16 Giga Byte. • USB: 06 USB Ports or better Monitor: <ul style="list-style-type: none"> • Branded LED 21 inch monitor • FHD (1920x1080) Accessories: <ul style="list-style-type: none"> • With all standard power cables. • Key board, Mouse, VGA cables etc • Antivirus: Kaspersky internet security or equivalent licensed for one year. • With genuine windows 	E
305.	Laptop	<ul style="list-style-type: none"> • Branded Laptop • Processor: Core i7 Quard-core (10th Generation) • Ram: 32GB or higher • Hard Disk: 1TB or higher • Display Size: 13.3” or higher • Resolution: 2560 x 1600 or higher • Graphics: Intl Iris Plus or better • Wifi: 802.11ac wireless networking or equivalent • Bluetooth: 5.0 or higher 	E

		<ul style="list-style-type: none"> • Antivirus: Kaspersky internet security or equivalent licensed for one year. • With genuine windows • With best quality bag 	
306.	Multimedia Projector	<ul style="list-style-type: none"> • Projection Technology: DLP Chip • Native Resolution: WUXGA or higher • Brightness (Lumens): 10000 or higher • Contrast Ratio 10000:1 or higher • Lens Shift Vertical Positive (%): 52 or higher • Lens Shift Vertical Negative (%): 52 or higher • Lens Shift Horizontal Positive (%): 18 or higher • Lens Shift Horizontal Negative (%): 18 or higher • Keystone Horizontal Negative (degrees) 38 or higher • Keystone Horizontal Positive (degrees) 28 or higher • Keystone Vertical Negative (degrees) 13 or higher • Keystone Vertical Positive (degrees) 13 or higher • Connectivity: HDMI x1, SDI IN x 1, DVI-D x 1, RGB 1 IN: 4 or higher • RGB 2 IN: x1 • SERIAL IN: 1 • SERIAL OUT: 1 • REMOTE IN/OUT: 2/1 • RJ45 For Control/Monitoring: 1 • Other Accessories: • 1 x Ceiling mount and projector plate and stand (Adjustable) • 2 x HDMI cables (High quality shielded) extra length 45 feet (Noise Free Video) • 1 x Power cable 45 feet (Flexible 3 core (Pakistan Cable) or equivalent) • 1 x Projection screen with stand or wall mount (As per requirement) <p>Operationalization of Multimedia Projector System's all components as well as end to end installation is included.</p>	E
307.	Generator 40 KVA	<p><u>Genset Rating:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> • Prime rating: 40KVA/32KW • Output Voltage (Single phase/Three Phase) : 220-240/400-440 • Frequency: 50Hz • Power Factor: 0.8 or better • RPM: 1500 or Better • Generator neutral shall be solidly earthed. <p><u>Engine Specification:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> • Fuel: Diesel • Engine Rating in HP : 48 HP or better • No of Cylinders: 4 Inline • Compression ratio: 18:1 or better • Displacement: 2.86L or better • Governor Type: Mechanical 	F

		<ul style="list-style-type: none"> Fuel Tank Capacity: 90 L or better Lubricant Oil Sump Capacity: 7.5L or better Ambient Temperature at Rated Load: 50°C Radiator Capacity (L): 13 L or better <p><u>Alternator:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> Type: 4 poles brushless Insulation: Class H Voltage Regulation No Load to Full Load: $\pm 1\%$ or better. Winding Pitch: 2/3 <p><u>Protections:</u></p> <ul style="list-style-type: none"> <u>Alternator Protection:</u> <ol style="list-style-type: none"> Overload and Short Circuit Protection. Generator Phase Sequence Protection. Over/Under Voltage Protection. Over/Under Frequency Protection. Over current Protection. <u>Engine Protection:</u> <ol style="list-style-type: none"> Low Lube oil Pressure High/Low Coolant Temperature Engine over & under Speed Emergency Stop Low Fuel Level <p><u>Display:</u></p> <ul style="list-style-type: none"> Voltage, Current, KW, Power factor, Frequency. Engine Oil Pressure Engine RPM Total Running Hours Coolant Temperature (Digital) Fuel level indication Palate Earthing <p>The following items must be included with diesel generator.</p> <ol style="list-style-type: none"> ATS panel (Local with imported components). 10-meter Power cable will be provided with generator. Providing, installation and testing of the unit and earthing network for generator set. Construction of foundation pad. Weather and sound proof canopy (Local). Separate price for Power cable (per meter), must be quoted. <ul style="list-style-type: none"> The supplier will be responsible for complete installation/functionalization of the generator. 	
308.	Generator 50 KVA	<p><u>Genset Rating:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> Prime rating: 50KVA/40KW Output Voltage (Single phase/Three Phase) : 220-240/400-440 Frequency: 50Hz Power Factor: 0.8 or better RPM: 1500 or Better <p><u>Engine Specification:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> Fuel: Diesel 	F

		<ul style="list-style-type: none"> • Engine Rating in HP : 60 HP or better • No of Cylinders: 4 Inline • Compression ratio: 18:1 or better • Displacement: 3.3L or better • Governor Type: Mechanical • Fuel Tank Capacity: 150L or better • Lubricant Oil Sump Capacity: 8L or better • Ambient Temperature at Rated Load: 50°C • Radiator Capacity (Ltr): 15 L or better <p><u>Alternator:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> • Type: 4 poles brushless • Insulation: Class H • Voltage Regulation No Load to Full Load: $\pm 1\%$ or better. • Winding Pitch: 2/3 <p><u>Protections:</u></p> <ul style="list-style-type: none"> • <u>Alternator Protection:</u> <ol style="list-style-type: none"> 1. Overload and Short Circuit Protection. 2. Generator Phase Sequence Protection. 3. Over/Under Voltage Protection. 4. Over/Under Frequency Protection. 5. Over current Protection. • <u>Engine Protection:</u> <ol style="list-style-type: none"> 1. Low Lube oil Pressure 2. High/Low Coolant Temperature 3. Engine over & under Speed 4. Emergency Stop 5. Low Fuel Level <p><u>Display:</u></p> <ul style="list-style-type: none"> • Voltage, Current, KW, Power factor, Frequency, KWh • Engine Oil Pressure • Coolant Temperature (Digital) • Fuel level indication • Engine RPM • Total Running Hours • Palate Earthing <p>The following items must be included with diesel generator.</p> <ol style="list-style-type: none"> 1. ATS panel (Local with imported components). 2. 10-meter Power cable will be provided with generator. 3. Providing, installation and testing of the unit and earthing network for generator set. 4. Construction of foundation pad. 5. Weather and sound proof canopy (Local). 6. Separate price for Power cable (per meter), must be quoted. <ul style="list-style-type: none"> • The supplier will be responsible for complete installation/functionalization of the generator. 	
309.	Generator 100KVA	<p><u>Genset Rating:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> • Prime rating: 100KVA/80KW • Output Voltage (Single phase/Three Phase) : 220-240/400-440 • Frequency: 50Hz 	F

- Power Factor: 0.8 or better
- RPM: 1500 or Better

Engine Specification: (Model, Make and country of origin must be mentioned)

- Fuel: Diesel
- Engine Rating in HP : 115 HP or better
- No of Cylinders: 4 Inline or better
- Compression ratio: 18:1 or better
- Displacement: 4.4L or better
- Governor Type: Electronic
- Fuel Tank Capacity: 250L or better
- Lubricant Oil Sump Capacity: 8L or better
- Ambient Temperature at Rated Load: 50°C
- Radiator Capacity (Ltr): 17 L or better

Alternator: (Model, Make and country of origin must be mentioned)

- Type: 4 poles brushless
- Insulation: Class H
- Voltage Regulation No Load to Full Load: $\pm 1\%$ or better.
- Winding Pitch: 2/3

Protections:

- **Alternator Protection:**
 1. Overload and Short Circuit Protection.
 2. Generator Phase Sequence Protection.
 3. Over/Under Voltage Protection.
 4. Over/Under Frequency Protection.
 5. Over current Protection.
- **Engine Protection:**
 1. Low Lube oil Pressure
 2. High/Low Coolant Temperature
 3. Engine over & under Speed
 4. Emergency Stop
 5. Low Fuel Level

Display:

- Voltage, Current, KW, Power factor, Frequency.
- Engine Oil Pressure
- Coolant Temperature (Digital)
- Fuel level indication
- Engine RPM
- Total Running Hours
- Palate Earthing

The following items must be included with diesel generator.

1. ATS panel (Local with imported components).
 2. 10-meter Power cable will be provided with generator.
 3. Providing, installation and testing of the unit and earthing network for generator set.
 4. Construction of foundation pad.
 5. Weather and sound proof canopy (Local).
 6. Separate price for Power cable (per meter), must be quoted.
- The supplier will be responsible for complete installation/

		functionalization of the generator.	
310.	Generator 200KVA	<p><u>Genset Rating:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> • Prime rating: 200KVA/160KW • Output Voltage (Single phase/Three Phase) : 220-240/400-440 • Frequency: 50Hz • Power Factor: 0.8 or better • RPM: 1500 or Better <p><u>Engine Specification:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> • Fuel: Diesel • Engine Rating in HP : 240 HP or better • No of Cylinders: 6 Inline or better • Compression ratio: 16.0:1 or better • Displacement: 7.0L or better • Governor Type: Electronic • Fuel Tank Capacity: 280L or better • Lubricant Oil Sump Capacity: 16L or better • Ambient Temperature at Rated Load: 50°C • Radiator Capacity (L): 25 L or better <p><u>Alternator:</u> (Model, Make and country of origin must be mentioned)</p> <ul style="list-style-type: none"> • Type: 4 poles brushless • Insulation: Class H • Voltage Regulation No Load to Full Load: $\pm 1\%$ or better. • Winding Pitch: 2/3 <p><u>Protections:</u></p> <p><u>Alternator Protection:</u></p> <ol style="list-style-type: none"> 1. Overload and Short Circuit Protection. 2. Generator Phase Sequence Protection. 3. Over/Under Voltage Protection. 4. Over/Under Frequency Protection. 5. Over current Protection. <p><u>Engine Protection:</u></p> <ol style="list-style-type: none"> 1. Low Lube oil Pressure 2. High/Low Coolant Temperature 3. Engine over & under Speed 4. Emergency Stop 5. Low Fuel Level <p><u>Display:</u></p> <ul style="list-style-type: none"> • Voltage, Current, KW, Power factor, Frequency. • Engine Oil Pressure • Coolant Temperature (Digital) • Fuel level indication • Engine RPM • Total Running Hours • Palate Earthing <p>The following items must be included with diesel generator.</p> <ol style="list-style-type: none"> 1. ATS panel (Local with imported components). 2. 10-meter Power cable will be provided with generator. 	F

		<ol style="list-style-type: none"> 3. Providing, installation and testing of the unit and earthing network for generator set. 4. Construction of foundation pad. 5. Weather and sound proof canopy (Local). 6. Separate price for Power cable (per meter), must be quoted. <ul style="list-style-type: none"> • The supplier will be responsible for complete installation/functionalization of the generator. 	
311.	R.O water purification plant for dialysis Machine	<p>RO Water Purification System to operate 10-12 Dialysis Machines through store tank, with imported parts locally manufactured.</p> <ul style="list-style-type: none"> • The system should comprise of pretreatment modules such as Pre RO micron filter for Bacterial protection Sand filter, activated carbon filter, water softener, 5 micron particulate filter, before the reverse osmosis unit and post R.O UV light Disinfection and Bacterial Filters. • The entire unit should have adequate monitoring permeate water conductivity, feed water pressure and permeate and rejection flow rate. • The water distribution loop, booster pump and storage water tank should be rust free. Storage water tank should have capacity of at least 500 liters. • Feed Pump Type centrifugal, horizontal, Material of construction Stainless Steel. input power 220VAC, 50Hz, single phase • The filtered water will be pumped by means of a high-pressure pump through the R O Module consists of 2 nos. of SS Pressure tubes & 2 nos. of membranes Size of Membrane 4" Dia x 40" Long. Around 50 % of the feed water will be available as permeate or product water and balance 50 % will be reject stream which will be the effluent from RO plant. • High Pressure Pump Type Vertical Multistage ,Material of construction Stainless Steel input power 220VAC, 50Hz, single phase • Should not have noise level more than 65 db. • Should have TDS meter to monitor feed water conductivity and R.O water conductivity. • It should be sensor to stop the feed pump when storage tank full, restarts it when RO water level goes down in the tank. 	G
312.	60KVA three phase Automatic voltage regulator	<ul style="list-style-type: none"> • Digital micro control type servo motor drive 60KVA three phase automatic voltage regulator. • Input Line Voltage Range: 260VAC to 470 VAC, 4 Wire • Output Line Voltage Range: 4 wire system (220 to 230 VAC natural to phase) (380 VAC to 440VAC phase to phase $\pm 3\%$) • Winding 99% copper • Power factor 0.9 or better • No wave form distortion • Response time not greater than 10 ms no overshooting or hunting during automatic operation. • Air cooling type • Ambient temperature: -10 to 40°C or better • AVR should have Overload/High/Low input voltage alarm • AVR should have overload, Spike and surge protection. 	G

		The AVR should have to display the following. <ul style="list-style-type: none"> • Input Phase to Netural • Input phase to phase • Output phase to neutral • Output phase to phase • Load Current in all the phases • Frequency • Overall system should have protection casing and wheels (lockable) for movement. • The supplier will be responsible for complete installation/functionalization of the unit. 	
313.	30 KVA single phase Automatic voltage regulator	<ul style="list-style-type: none"> • Digital micro control type servo motor drive 30KVA single phase automatic voltage regulator. • Input Line Voltage Range: 130VAC to 270VAC • Output Line Voltage Range: 220VAC to 230VAC • Winding 99% copper • No wave form distortion • Air cooling type • Ambient temperature: -10 to 40°C or better • Response time not greater than 10 ms no overshooting or hunting during automatic operation. • AVR should have overload, Spike and surge protection. • The AVR should have to display the input voltage, output voltage and load current. • The supplier will be responsible for complete installation/functionalization of the unit. 	G
314.	5 KVA UPS	<ul style="list-style-type: none"> • Topology: Double conversion online • Nominal output voltage: Configurable for 220 : 230 or 240 nominal output voltage • Efficiency at full load: Up to 92% with at least 40 minutes backup • Output frequency(sync to mains):50/60 Hz +/- 3 Hz user adjustable • Output power capacity: 4500W or better • Output connections: (8) IEC 320 C13; (2) IEC 320 C19 • Nominal input voltage:230 V • Input frequency:45 – 65 Hz (auto sensing) • Input connections: Hardwire 3-wire(1PH + N + G) • Bypass: Automatic and Manual (Built-in) • Battery type: Maintenance-free sealed lead-acid battery with suspended electrolyte: leak proof • Operating Temp: 0 – 50°C (Output derated linearly to 75% of UPS capacity @>400C) • Replacement battery: RBC44 • Interface port(s): RJ-45 10/100 Base-T, RJ-45 Serial, Smart Slot • Emergency power off(EPO):Yes • Control panel: LEDs 	G
315.	5KVA Solar Off Grid Hybrid Inverter	<ul style="list-style-type: none"> • 5000 Watts (5 KVA) 48 Volts DC, 220 Volt AC Single Phase Ouput, MPPT 80 Ampere Charge Controller with Hybrid charging, and electronic protections complete in all respect. 	G

		<ul style="list-style-type: none">• Four 12 Volt, 150 AH Deep Cycle Maintenance Free GEL Batteries• 300 Watt Solar Panel (Mono-Crystalline) PV Module with 25 Years Power Output Warranty, 16• Solar Panel Mounting Structure ,made of Hot Dipped Galvanized Steel Structure (Angle Iron) 16• 16mm (sq) flexible cable 99.9% copper• Transportation / Installation Charges to be bared by the firm 1	
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Surgical Instruments (Category C)

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

Selection must be subject to sample.

S#	Item Name	Specifications
1.	All metal bladder syringe	Best quality, good material.
2.	Allies forceps 6"	Best quality, good material.
3.	Allies forceps long	Best quality, good material.
4.	Aneurysm needle curved to the right	Best quality, good material.
5.	Artery forceps 4"	Best quality, good material.
6.	Artery forceps 5" pointed ss	Best quality, good material.
7.	Artery forceps 6"	Best quality, good material.
8.	Artery forceps 6" SS curved	Best quality, good material.
9.	Artery forceps 8" straight	Best quality, good material.
10.	Artery forceps 9" long curved	Best quality, good material.
11.	Artery forceps 9" long pointed curved	Best quality, good material.
12.	Artery forceps 9" long straight	Best quality, good material.
13.	Bandy turin verbal forceps 9.5 long	Best quality, good material.
14.	Basin SS	Best quality, good material.
15.	Basin stand	Best quality, good material.
16.	Berkleys Retractor	Best quality, good material.
17.	Bohlerieg tight splint different size	Best quality, good material.
18.	Bone cutting forceps	Best quality, good material.
19.	Bone Nibbler	Best quality, good material.
20.	Bone Ranger (Oral Surgery)	Best quality, good material.
21.	Bowel SS large	Best quality, good material.
22.	Bowel SS small	Best quality, good material.
23.	Bozemansfirst his catheter for washing drum vessel	Best quality, good material.
24.	Bozemans needle holder 7.5"	Best quality, good material.
25.	BP handle	Best quality, good material.
26.	BP Scalpel Handle for Blad-15 oral surgery	Best quality, good material.
27.	Brand splinters tendon stopper	Best quality, good material.
28.	Brewers or gives specula 3 size	Best quality, good material.
29.	Brims extension frame for long D sizes	Best quality, good material.
30.	Cartridge Syringes with aspirating facility	Best quality, good material.
31.	Cheatle Sterilizer forceps10" long	Best quality, good material.
32.	Check Retractor (Oral Surgery)	Best quality, good material.
33.	Chisel 6 size	Best quality, good material.
34.	Containers for Sputum Culture	Best quality, good material.
35.	Containers for urine Culture	Best quality, good material.
36.	Cremel double Retractor	Best quality, good material.
37.	Curette Oral Surgery	Best quality, good material.

38.	Curved light forceps for stone 8,6,5" long	Best quality, good material.
39.	Danis Browns Retractor Universal	Best quality, good material.
40.	Dilating complete set	Best quality, good material.
41.	Dissecting forceps plain	Best quality, good material.
42.	Ear syringe	Best quality, good material.
43.	Elevator Angular Pair	Best quality, good material.
44.	Elevator cross bar pair	Best quality, good material.
45.	Elevator pair of cryers (Triangular Shape)	Best quality, good material.
46.	Elevator straight	Best quality, good material.
47.	Entrap Uterine Canals	Best quality, good material.
48.	Eroded Mattable probe ended director 6.5" long	Best quality, good material.
49.	Eve's intestinal forceps 9" long	Best quality, good material.
50.	Examination Mirror	Best quality, good material.
51.	Examination tweezers	Best quality, good material.
52.	Extraction Forceps upper Interior	Best quality, good material.
53.	Extraction forceps lower BDR	Best quality, good material.
54.	Extraction forceps lower interior	Best quality, good material.
55.	Extraction forceps lower molar	Best quality, good material.
56.	Extraction forceps lower pre-molar	Best quality, good material.
57.	Extraction Forceps upper BDR	Best quality, good material.
58.	Extraction Probe Upper Molar	Best quality, good material.
59.	Extraction Probe Upper Pre Molar	Best quality, good material.
60.	Female Dilator	Best quality, good material.
61.	Female metallic catheter	Best quality, good material.
62.	Galantian squotum sound	Best quality, good material.
63.	Gallium Hysterectomy forceps curved 11x1	Best quality, good material.
64.	Gallium Hysterectomy forceps straight 1x2	Best quality, good material.
65.	Gland forceps	Best quality, good material.
66.	Gadless urine dilator	Best quality, good material adjustable
67.	Hammer Heavy	Best quality, good material.
68.	Hangers models double ended cervix dilation	Best quality, good material.
69.	HerocsTurin uterus fine semi blunt	Best quality, good material.
70.	Hurry Fenwicks Retractor	Best quality, good material.
71.	Instrument cabinet large size	Best quality, good material.
72.	Intestine Holding forceps	Best quality, good material.
73.	Introducer for Catheter	Best quality, good material.
74.	Kelley's Retractor	Best quality, good material.
75.	Kidney pedicle 9.5" long	Best quality, good material.
76.	Kidney tray SS Size	Best quality, good material.
77.	Laces Retractor	Best quality, good material.
78.	Lamp cradle 3 size	Best quality, good material.
79.	Lanes stomach holding forceps 8"	Best quality, good material.
80.	Lange back's Retractor L Shape oral surgery	Best quality, good material.

81.	Legel Face Mask	Best quality, good material.
82.	Lens Tissue forceps 8"	Best quality, good material.
83.	Legenback Retractor	Best quality, good material.
84.	Lion forceps v sizes	Best quality, good material.
85.	Lockport memory fistula director pattern 1,2,3,4	Best quality, good material.
86.	Main Gut intestinal forceps	Best quality, good material.
87.	Mason Chained file dissector with probe 5.5"	Best quality, good material.
88.	Mayas Safety Pins	Best quality, good material.
89.	Mayo Curved 8.5" long	Best quality, good material.
90.	Mayo instrument stand	Best quality, good material.
91.	Mayo Needle Holer 7.5"	Best quality, good material.
92.	Mayo Straight Scissors	Best quality, good material.
93.	Megills forceps	Best quality, good material.
94.	Metozone bum scissors 8.5"	Best quality, good material.
95.	Mirrors Retractor	Best quality, good material.
96.	Moore boil spoon with handle	Best quality, good material.
97.	Mouth prop oral surgery	Best quality, good material.
98.	Nail extractor	Best quality, good material.
99.	Needle holder large size	Best quality, good material.
100.	Nose speculum	Best quality, good material.
101.	Nose Vigilant forceps 13.5"	Best quality, good material.
102.	Oeatomes 4 sizes	Best quality, good material.
103.	Oller Retractors	Best quality, good material.
104.	Ordinary mask nasal catheters	Best quality, good material.
105.	Parser excision clamp 9"	Best quality, good material.
106.	Pelivis meter	Best quality, good material.
107.	Periosteal Elevator Oral surgery	Best quality, good material.
108.	Periosteum Elevator	Best quality, good material.
109.	Pin cutter	Best quality, good material.
110.	Plaster of paris knife	Best quality, good material.
111.	Pool S Abdominal Suction Tube	Best quality, good material.
112.	Position Aspirator	Best quality, good material.
113.	Preat stainless steel	Best quality, good material.
114.	Precursor	Best quality, good material.
115.	Randall's renal calculus curved	Best quality, good material.
116.	Rectal speculum large / small	Best quality, good material.
117.	Rectangular tray SS	Best quality, good material.
118.	Retro-grate boggles size 4/7, 6/9, 8/11	Best quality, good material.
119.	Richardson Appendectomy Set Retractor	Best quality, good material.
120.	Same ducks abill specula double ended	Best quality, good material.
121.	Scissors oral surgery	Best quality, good material.
122.	Scissors Surgical V. size	Best quality, good material.
123.	Self-Retracting Abdominal	Best quality, good material.

124.	Sim forceps	Best quality, good material.
125.	SIMMs duck bill specula single ended	Best quality, good material.
126.	Single Hocks Blunt	Best quality, good material.
127.	Singles vigilant dressing forceps with small sector	Best quality, good material.
128.	Skin Retractor	Best quality, good material.
129.	Skin small Retractor	Best quality, good material.
130.	Small Needle Holder oral surgery	Best quality, good material.
131.	Smith forceps hare curved left / right	Best quality, good material.
132.	Sound Bladder	Best quality, good material.
133.	Spittoons stainless steel	Best quality, good material.
134.	Sponge holder forceps large size	Best quality, good material.
135.	Sponge holder with curved older with curved handle 8"	Best quality, good material.
136.	Sponge holder with spring handle 16"	Best quality, good material.
137.	Suction bowel stand	Best quality, good material.
138.	Tendon hook	Best quality, good material.
139.	Tenotomy knife Blunt ended	From good quality glass material
140.	Tenotomy knife sharp pointed	Best quality, good material.
141.	Toothed dissecting forceps oral surgery	Best quality, good material.
142.	Towel clip	Best quality, good material.
143.	Tracer Canola	Best quality, good material.
144.	Tray with cover large size	Best quality, good material.
145.	Tubule inflation apparatus	Best quality, good material.
146.	Urethral V S	Best quality, good material.
147.	Urinal stainless steel male and female	Best quality, good material.
148.	Uterine curette blunt and sharp	Best quality, good material.
149.	Vigilant dressing forceps 9.5"	Best quality, good material.
150.	Wire cutting forceps	Best quality, good material.
151.	Wallons Gesture Eterestomy clamp 13"	Best quality, good material.
152.	Ward nephrolithotomy forceps	Best quality, good material.
153.	Wash stand with 2 basin side by side	Best quality, good material.
154.	Waxen Jones birth fracture frame	Best quality, good material.
155.	Tendon Hammer	Best quality, good material.
156.	wire Brush	Best quality, good material.
157.	Tuning Fork	Best quality, good material.
158.	Teflon Injection Burning Syringe	Best quality, good material.
159.	Femoral Distractor	Best quality, good material.
160.	Hand Chulk	Best quality, good material.
161.	Pin Cutter	Best quality, good material.
162.	Jex Thyroid Retractor hooking nut	Best quality, good material.
163.	Prostate (Bladder) Self Retaining Retractor	Best quality, good material.
164.	Thyroid Retractor	Best quality, good material.

165.	Vaginal Speculum	Best quality, good material.
166.	Amalgam Plunger filling	Best quality, good material.
167.	Bone Rongers (Oral Surgery)	Best quality, good material.
168.	Burnishing Filling	Best quality, good material.
169.	Cartridge Syringe with Aspirating Facility	Best quality, good material.
170.	Cellulose or Plastic Strip	Best quality, good material.
171.	Cement Spatula	Best quality, good material.
172.	Excavator Filling	Best quality, good material.
173.	Glass Slab	Best quality, good material.
174.	Instrument for Filling	Best quality, good material.
175.	Mortar & Pastel	Best quality, good material.
176.	Steel Matrix Bands Different Size	Best quality, good material.
177.	Abdominal Retractor	Consisting Of: 1 X Retractor With 2 Pairs Exchangeable Valves 1 X Gusset Retractor 1 X Denis - Browne Retractor With 4 Blades
178.	Stand for three sterilizer drum with Drained	Make of Steel Pipe dia
179.	Basin S.S.	Best quality, good material.
180.	Basin Stand	Best quality, good material.
181.	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
182.	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
183.	Chest Intubations Set	Best quality, good material.
184.	Point's Aspirator	Best quality, good material.
185.	Tongue Depressor Steel	Tongue Depressor Steel
186.	Proctoscope for adult & child	Best quality, good material.
187.	Proctoscope	Premium Grade Stainless Steel
188.	Screw driver Ser 3.5mm	Best quality, good material.
189.	Screw driver Ser 4.5mm	Best quality, good material.

LIST OF SURGICAL INSTRUMENTS SETs (Category C)

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

Selection will be on samples.

S.No	Name of the Set	Specification
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. Needle holder 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 Jensen Retractor Right 01

		23.Plaster Jenson Retractor Left 01 24.TumarkinMetal Ear Speculum Slotted 04 25.CawthornePeriosteal Elevator 01 26.King Vein Graft Pressing Forceps 01 27.InstrumentsTray12"x14" 01 28.Needles Box 01 29.Mastoid Chisel 01 Along with Container
3	Rhinoplasty Set	1. Nasal Speculum 01 2. Alfrights Nasal Retractor 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 Septum forceps Str. (Ash) 01 7. Metzenbom Scissors Cvdonflat8" 01 8. Stoz nasal saws rightandleft 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 McIndoeChisels5,7,9,11,15mm 01 15.Tillys Nasal Forceps 01 16.McIndoe Non ToothedForceps6" 01 17.Mastarde'sToothedForceps6" 01 18.Adson Toothed Forceps Fine 01 19.Adson Toothed Forceps Medium 01 20.American pattern suction cannula 01 21.Valkmann curette 01 22.Towel Clips 08 23.Marking pen 01 24.Inkpot 01 Along with Container
4	SMR Set	1. Freer Elevator 02 2. Killian Nasal Gouge V-Shape angled 02 3. Killian Nasal Gouge V-Shape straight 02 4. Lucus Nasal chisel 02 5. Hammer SS 01 6. Frazier Suction Nozzle No 9,10,12 03 7. Tilley's Nasal Dressing Forceps 01 8. Luc Turbinate Forceps Small 01 9. Luc Turbinate Forceps Medium 01 10.Hartmann crocodile forceps 01 11.Killian NasalSpeculum2" 01 12.Killian NasalSpeculum2.5" 01 13.Killian NasalSpeculum3" 01 14.Hayman's Turbinectomy Scissors 01 15.Thudicum nasal speculums 03 16.Tilley's Trocar &CannulaNo7 02

		17. Tiiley's Trocar & Cannula No 8 01 18. Walsham Septum Forceps straint 2 01 19. Double action bone nibbler Jenson. Middleton 01 20. Walsham septum forceps right 01 21. walsham septum forceps left 01 22. Yankaur suction nozzal 01 23. Kidney tray 1000ml 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. 01 4. Gwynne Evans Tonsil Dissector. 01 5. Mollison Anterior Pillar Retractor. 01 6. Waugh Tonsil Dissecting Forceps 1X2 Tooth 8". 01 7. Waugh Tonsil Dissecting Forceps Plain 8". 01 8. Tonsil Artery Forceps Fine Straight. 01 9. Negus Tonsil Artery Forceps Short Curve. 01 10. Negus Tonsil Artery Forceps Long Curve. 01 11. Tonsil Scissors Curved 7.5". 01 12. Tonsil Scissors Fine Point Curved 7". 01 13. Eve's Tonsil Snare. 01 14. Tonsil Snare Wire Packet. (Packet of 15 Pes) 01 Pkt. 15. St. Clair Thomson Adenoid Curette With guard Small. 01 16. St. Clair Thomson Adenoid Curette With guard Large 01 17. Negus Pusher. 01 18. Denis Brown Tonsil Holding Forceps. 01 19. B.P. Handle No. 7. 01 20. Yankaur Suction Nozzle. 01 21. Instruments Tray 01
6	Cataract Surgery Set	1. Wire Speculum. 01 2. St. Clark's Self-Retraining Speculums. 01 3. Arragua's Superior Rectus Needle Holder 01 4. Blade Breaker. 01 5. Micro Corneal Forceps with Suture Tying 01 6. Universal Corneal Scissors. 01 7. Iris Scissors Str/Cvd. 02 8. Micro Corneal needle holder. 01 9. Iris Repository double ended. 01 10. Arruga's capsular forceps 01 11. Wire Vectus. 01 12. Cautery Point. 01 13. Spring Scissors Straight. 01 14. Micro Mosquito Artery Forceps Str/Cvd. 04 15. Fixation Forceps. 01 16. Micro Suture Tying Forceps. 01 17. Simeco Two-way Cannula. 01 18. Toothed dissecting forceps 7" 01 19. Non toothed dissecting forceps 7" 01 20. Allis forceps 8" 01 21. Long Artery forceps 9" curved 01

		22.Long Artery forceps 9” straight 01 23.Deaverretrctors set of three 2”,2”,3” 01 24.Volsellum forceps 01 25.Kidney tray 1 litre 01 26.Kidney tray 500 ml 01 27.Mcpharson Forceps 01 28.Instruments Tray 8x10” 01 Along with Container
7	DCR Instrument Set	1. D.C.R. BonePunch (Karrison). 01 2. D.C.R. Periosteal Elevator Double Ended 01 3. Mosquito Artery Forceps Straight. 02 4. Mosquito Artery Forceps Curved. 02 5. Bowman Lacrimal Probe No.0-00. 01 6. Bowman Lacrimal Probe No.1-2. 01 7. Bowman Lacrimal ProbeNo.3-4. 01 8. Wilder Lacrimal Dilator. 01 9. West Lacrimal Sac Chisel. 01 10.Towel Clips. 02 11.Straight Eye Scissors (Iris). 01 12.Stevens TenotomyScissors. 01 13.Stevenson Lacrimal Sac Retractor. 01 14.Knapp Lacrimal Sac Retractor. 01 15.Small Mallet. 01 16.Barraquer Needle Holder Curved. 01 17.Straight Dressing Forceps (Iris)Plain. 01 18.NasalSpeculum. 01 19.NasalDressingForceps. 01 20.SutureBarker 01 Along with Container
8	Electric Foreign Body Set	1. Beccock 02 2. knife handle 01 3. Small artery forceps 03 4. plane dissecting forceps 01 5. tooth dissecting forceps 01 6. needle holder 01 7. Scissor 02 8. Small Allis’s 02 9. Retractors 02 Along with Container
9	Dissection box for post-mortum with all accessories	1. Enterotome 02 2. Skull Chisel 02 3. Rib Cutter 02 4. Scalpel 05 5. Scalpel Blades 100 Pc 6. Tooth Forceps 05 7. Bone Saw 02 8. Amputation knife 02 9. Postmortem Hammer 01 10.Postmortems Chisel 02 11.Postmortem Spine Wrench 01

		12.Postmortem Hook Knife	01
		13.Blowpipe	01
		14.Scissor	02
		Along with container	
10	Glaucoma Set	1. Blade Braker	01
		2. B.P Handle No.3	01
		3. Wire Speculum	01
		4. Mosquito Artery Forceps Str/Cvd	02
		5. Corneal Scissors Right.	01
		6. Corneal Scissors Left.	01
		7. Corneal Scissors Curved of flat.	01
		8. Barahuer Needle Holder Curved	01
		9. A/I Cannula	01
		Along with Container	
11	Squint Surgical Set	1. Micro Needle holder	01
		2. Needle Holder Large	01
		3. Conjunctival Scissors	01
		4. Corneal Toothed Large	01
		5. Artery Forceps	06
		6. Bulldog Clamps	02
		7. Squint Hook	02
		8. V. Calipers.	01
		9. Bowel SS 4"	01
		10.Kidney Tray	01
		Along with Container	
12	AO Basic Set	1. Twist Drills (unmounted 2.5mmdiam.13cm)	02
		2. Twist Drills (unmounted 3.5mmdiam13cm)	02
		3. Howmann Bone lever small 16 length 6mm wide	03
		4. Howmann Bone levercobratype.16cm	01
		5. Varburg Bone holdingforceps20cm	02
		6. Reduction clamp pointed13cm	02
		7. Reduction clamp screw jaw withteeth15cm	02
		8. Simmons plier17cm	01
		9. Tap 2.7mmdiam11cm	01
		10. Handle for screw driver +countersink	01
		11. Counter sink 10mm diam12.5cm	01
		12. Screw driver 2.5mm11.5cm	01
		13. Jeffsonperosteal elevator 5mm20mm	01
		14. Plate bender14cmRetorcedor	02
		15. Screw sleeve 2.5mm+2.0mm	01
		16. Screw sleeve 2.7mm+2.0mm	01
		17. Tap sleeve 2.5mm+3.5mm	01
		18. Venabie Screwsleeve2.0mm	01
		19. Drill Guide	02
		20. Bone Scaler	01
		21. Depth gage Large	01
		22. Screwclamps8cm	01
		23. Screw Driver with Guide2.5mm19cm	01
		Along with Container	
13	AO Small Fragment	1. Bone Holding Forceps A/o small	02

	Set	2. Bone Spikier small 02 3. Screw Driver small2.5mm 01 4. Periosteal Elevator small 01 5. Chisel small 01 6. Bone Cutter small 01 7. Wire Cutter Small 01 8. Tap small3.5 01 9. Tap Sleeve3.5 01 10.Depth Gage Small 01 11.Screw Sleeve 01 12.Instruments Box 01 Along with Container
14	Dressing Set for Ward	1. Dressing scissors(Plastic Handle) 01 2. Stitch Scissors fine 02 3. No Toothed Forceps. 01 4. Toothed Forceps. 01 5. Artery forceps. 01 6. Suture forceps. 01 7. Small Kidney Tray. 01 8. Bowl 01 9. Kocher Forceps 01 Along with Container
15	IMN Set	1. Awl 01 2. Cortical Awl 01 3. Tissue Protecort 01 4. Impactor Large, Medium and Small 01 5. GuidePin3.5mm 01 6. Extractor 01 7. Bio-Locking Femur 03 8. 10/12/14x360/380/400/420/440/460 9. Femur proximal locking screw 03 10.60/65/70/80/90/100 11.Tibia/femoral blocking screw 03 25/30/35/40/45/50/55/60/65 12.Bio-locking Tibia 03 13.Bio-locking humerus 03 14.Proximal locking screw 15.End Stem 16.Reamer with T-Handle 6mm to 17mm 01 each Along with Container
16	Dissecting Instrument Set	1. Artery Forceps Medium 04 2. BP Handle 02 3. Dissecting Forceps plain & tooth 02 4. Dressing Disecting Scissors (S & M) 02 5. Dressing suture Cutting Scissors 01 6. Czerny Retractor 02 7. Legenback Retractor 02 8. Needle Holder 02 Along with Container
17	Colostomy set	1. Instrument container box10"x12" 01

		2. Towel clips on pin	06
		3. B.P handleNo4	02
		4. Artery forceps 6"curved	08
		5. Artery forceps 6"straight	04
		6. Sponge holding forceps	02
		7. Metzebaum scissors 9"curved	01
		8. Sim's straight scissors 8"	01
		9. Czerney retractors	02
		10.Langen baeck retractors	02
		11.Needle holder7"	01
		12.Toothed dissecting forceps7"	01
		13.Non toothed dissecting forceps7"	01
		14.Deaver retractors 2"wideblade	02
		15.Deaver retractors 3"wideblade	01
		16.CBR bougles set`	01
		17.Lathey's forceps	01
		18.Werthemneedleholder9"	01
		19.Allis forceps7" (S,M & L)	06
		20.Yankauer suction canola	01
		21.Kidney tray1litre	01
		22.Deaver retractors 3"wideblade	01
		23.Kidney tray500ml	01
		24.Toothed dissectingforceps9"	01
		25.Non toothed dissectingforceps9"	01
		Babcock Forcep (S,M & L)	06
18	C-Section set	1. instrument container box 10"x12"	01
		2. Towel clips on pin	06
		3. Sponge holding forceps	02
		4. Non toothed dissecting forceps 7"	02
		5. Toothed dissecting forceps 7"	01
		6. BP handle No 4	02
		7. Allis's forceps 9"	02
		8. Kidney tray 1 litre	01
		9. Artery forceps 6" curved on pin	08
		10.Artery forceps 6"	04
		11.straight Metzebaum scissors 9"	01
		12.curved Sim's straight scissors 8"	01
		13.Doyne retractors	01
		14.Gallipots 150 ml	01
		15.Wrightley's outlet forceps pair	02
		16. Needle holder 7"	02
		17.Needle holder 9"	01
		18. Baby Cord clamps	02
		19.Green armytage forceps	02
		20.Long Artery forceps 9" straight	01
		Long Artery forceps 9" curved	02

19	D & C Set	1. Uterine Sound 01 2. Curette Double Ended 03 3. Volselum10” 01 4. Artery Clamp 10” 08 5. Ovum Forceps. 02 6. Dialectomy set 01 7. Sims speculum forceps set of three 01 8. Curved for Gynae 1 to 5 01 9. Sate catheter (Metallic female catheter) 01 10.Instrument containerbox10”x12” 01 11.towel clipsonpin 04 12.sponge holdingforceps9.5” 01 13.non toothed dissecting forceps 8” 02 14.Allis’s forceps 9” 02 15.Dilator set (Hegers) 01 16.Galli Pot 150ml 02
20	Dressing Set with Trolley	1. instrument container box10”x12” 01 2. Towel clips on pin 06 3. Sponge holding forceps 01 4. non toothed dissecting forceps7” 01 5. Allis’s forceps9” 01 6. Dilator set 01 7. Sims speculum set 01 8. Duck speculum set 01 9. Uterine Sound 01 10.Volselum set 01 11.Uterine curette set of three 01 12.Kidney tray 1 litre 01 13.Flushing curette set of three 01 14.Gallipots 150 ml 01
21	E & C Set	1. instrument container box10”x12” 01 2. Towel clips on pin 04 3. Sponge holding forceps 01 4. non toothed dissecting forceps7” 06 5. Allis’s forceps9” 02 6. Dilator set 04 7. Sims speculum set 04 8. Duck speculum set 04 9. Uterine Sound 01 10.Volselum set 04 11.Uterine curette set of three 02 12.Kidney tray 1 liter 01 13.Kidney tray 500ml 01 14.Flushing curette set of three 01 15.Gallipots 150 ml 01

22	Laparatomy set	1. Instrument container box 10"x12" 01 2. Towel clips on pin 06 3. B.P handleNo4 02 4. Artery forceps6"curved 08 5. Artery forceps6"straight 04 6. Sponge holding forceps 02 7. Metzebaumscissors9"curved 01 8. Sim's straightscissors8" 01 9. Czerney retractors 02 10.Langenbaeck retractors 02 11.Needleholder7" 01 12.Toothed dissectingforceps7" 01 13.Non toothed dissectingforceps7" 01 14.Deaver retractors 2"wideblade 02 15.Deaver retractors 3"wideblade 01 16.Kirschnerself-retaining retractor with 4 blades 01 17.Non crushing intestinal clamps curved 02 18.Non crushing clamps straight 02 19.Artery clamps9"curved 01 20.Lathey's forceps 01 21.Debaky Forcep 01 22.Toothed dissectingforceps9" 01 23.Non toothed dissectingforceps9" 01 24.Allisforceps7" 02 25.Yankauer suction cannula 01 26.Kidney tray1litre 01 27.Kidney tray500ml 01 28.Needleholder9 01 29.Daitherny Monopolar 01 30.Self-Retaining Retractor 01
23	Normal Delivery set	1. Stainless steel imported/Local made 2. Bowl lotion 150 mm 01 3. Kidney Tray 10" 03 4. Mucus Extractor Reusable Rubber 02 5. Catheter used with mucus Extractor 02 6. Artery Forceps Kocher 8" straight. 04 7. Dissecting Forceps 6" toothed. 04 8. Needle holder mayo 6.5 01 9. Outlet Forceps large size. 02 10.Episiotomy Scissors 6" 02 11.Scissors B/B 06 12.Card Clamp. 01 13.Sims Speculum 01 Along with Container
24	Obs/ General Gynae set	1. Instrument container box 10"x12" 01 2. Towel clips on pin 01 3. Sponge holding forceps 01 4. Non toothed dissecting forceps7" 01 5. Toothed dissecting forceps7" 01 6. BP handle No 4 01

		7. Allis's forceps 8"	01
		8. Kidney tray 1 litre	01
		9. Artery forceps 6" curved on pin	01
		10. Artery forceps 6" straight	01
		11. Metzebaum scissors 9" curved	01
		12. Sim's straight scissors 8"	01
		13. Kidney tray 500ml	01
		14. Deaver retractors set of three	01
		15. Gallipots 150ml	01
		16. Bowl 8 litre	01
		17. Needle holder 7"	01
		18. Needle holder 9"	01
		19. Self-retaining retractor (Balfon 3 blades)	01
		20. Volsellum forceps	01
		21. Long Artery forceps 9" straight	01
		22. Long Artery forceps 9" curved	01
		26. Viginal Retractor	01
25	Thoracotomy set	1. Instrument container box 10"x12"	01
		2. Towel clips on pin	06
		3. B.P handle No 4	02
		4. Artery forceps 6" curved	08
		5. Artery forceps 6" straight	04
		6. Sponge holding forceps	02
		7. Metzebaum scissors 9" curved	01
		8. Sim's straight scissors 8"	01
		9. Czerney retractors	02
		10. Langenbaeck retractors	02
		11. Needle holder 7"	01
		12. Toothed dissecting forceps 7"	01
		13. Non toothed dissecting forceps 7"	01
		14. Allis forceps 7"	01
		15. Rib spreader	01
		16. Doyen rib spactors set	01
		17. Yankauer suction cannula	01
		18. Lung retractors	02
		19. Kidney tray 1 litre	01
		20. Kidney tray 500ml	01
		21. Needle holder 9"	01
26	Thyroidectomy Set	1. Joll's Retractor	01
		2. Towel clip on pin	06
		3. BP handle No 4	02
		4. Artery forceps 6" curved	08
		5. Artery forceps 6" straight	04
		6. Sponge holding forceps	02
		7. Meta-Baum scissors 9" curved	01
		8. Sim's straight scissor 8"	01
		9. Czerny retractor	02
		10. Langeback retractor	02
		11. Needle Holder 7"	01
		12. Toothed dissecting forceps 7"	01

		13.Non toothed dissecting forceps 7"	01
		14.Thyroidre	01
		15.Allies forceps 7"	01
		16.Kidney tray 1 liter	01
		17.Kidney tray 500ml	01
		17.Along with Container	
27	Urethral Dilator set	1. Complete Set of Autoclavable Dilators 2. Sizes; 2-32 15.Along with container	
28	Varicose Vein set	1. Instrument container box 10"x 12" 2. Towel clips on pin 3. B.P handle No 4 4. Artery forceps 6" curved 5. Artery forceps 6" straight 6. Sponge holding forceps 7. Czerney retractors 8. Langenbaeck retractors 9. Needle holder 7" 10.Toothed dissecting forceps 7" 11.Non toothed dissecting forceps 7" 12.Artery clamps 9" curved 13.Lathey's forceps 14.Toothed dissecting forceps 9" 15.Non toothed dissecting forceps 9" 16.Allis forceps 7"	01 06 02 08 04 02 02 02 01 01 01 01 01 01 01 01
29	Haemorrhoidectomy set	1. Instrument container box 10"x 12" 2. Towel clips on pin 3. Artery forceps 6" curved 4. Artery forceps 6" straight 5. Sponge holding forceps 6. Metzebaum scissors 9" curved 7. Sim's straight scissors 8" 8. Needle holder 7" 9. Toothed dissecting forceps 7" 10.Non toothed dissecting forceps 7" 11.Kidney tray 1 litre	01 06 08 04 02 01 01 01 01 01 01 01
30	Prostatectomy Set	1. Instrument container box 10"x12" 2. Towel clips on pin 3. B.P handle No4 4. Artery forceps 6" curved 5. Artery forceps 6" straight 6. Sponge holding forceps 7. Metzebaum scissors 9" curved 8. Sim's straight scissors 8" 9. Czerney retractors 10.Needle holder 7" 11.Toothed dissecting forceps 7" 12.Non toothed dissecting forceps 7" 13.Suprapubic retractor 14.Allis forceps 7" 15.Yankauer suction cannula	01 06 02 08 04 02 01 01 02 01 01 01 01 01 01

		16.Kidney tray 1litre	01
		17.Kidney tray 500ml	01
		18.Prostectomy Retractor	01
31	Cholecystectomy Set	1. Instrument container box 10"x12"	01
		2. Towel clips on pin	06
		3. B.P handle No4	02
		4. Artery forceps6"curved	08
		5. Artery forceps 6" straight	04
		6. Sponge holding forceps	02
		7. Metzebaum scissors 9"curved	01
		8. Sim's straight scissors8"	01
		9. Czerney retractors	02
		10.Langenbaeck retractors	02
		11.Needle holder7"	01
		12.Toothed dissecting forceps7"	01
		13.Non toothed dissecting forceps7"	01
		14.Deaver retractors 2" wide blade	02
		15.Deaver retractors 3" wide blade	02
		16.Allis forceps7"	02
		17.Yankauer suction cannula	01
		18.Kidney tray 1litre	01
32	Vaginal Hysterectomy Set	1. Instrument container box10"x12"	01
		2. Towel clipson pin	06
		3. B.P handleNo 4	02
		4. Artery forceps 6"curved	08
		5. Artery forceps 6"straight	04
		6. Sponge holding forceps	02
		7. Metzebaumscissors9"curved	01
		8. Sim's straightscissors8"	01
		9. Czerney retractors	02
		10.Langenbaeck retractors	02
		11.Needleholder7"	01
		12.Needleholder8"	01
		13.Toothed dissectingforceps7"	01
		14.Non toothed dissectingforceps7"	01
		15.Alliesforceps7"	06
		16.Sim's speculum set	01
		17.Gallipots150ml	02
		18.Uterine sound	01
		19.Kidney tray1litre	01
		20.Kidney tray500ml	01
		21.Volsellum forceps	02
		22.Viginal Retractor	01
33	Vascular set	1. Instrument container box10"x12"	01
		2. Towel clips on pin	06
		3. B.P handleNo4	02
		4. Artery forceps 6"curved	08
		5. Artery forceps 6"straight	04
		6. Sponge holding forceps	02
		7. Metzebaumscissors9"curved	01

		8. Sim's straight scissors 8"	01
		9. Czerney retractors	02
		10. Langenbaeck retractors	02
		11. Needle holder 7"	01
		12. Toothed dissecting forceps 7"	01
		13. Non toothed dissecting forceps 7"	01
		14. Allis forceps 7"	04
		15. Vascular Clamp	02
34	Laminectomy Sets	1. Carrison's Rangour (up-cut) 2. 1mm, 2mm, 3mm, 4mm 3. Pituitary Rangour 4. 1mm, 2mm, 3mm (Strait) 5. 2mm Forward - 6. 2 mm Backward - 7. Watson chain Dissector - 8. Adson's retractor - root retractor 9. Mastoid retractor - 10. Deep Mastoid retractor (Cervical) 11. Hemi-retractor - (Right 01) (Left 01) 12. Chisel - 13. Suction nozzles - small, medium, large 14. BP knife handle - long 15. Cutting set: fine / assistant Scissors 16. Needle holders 17. Dissecting forceps - Plain and tooth 18. Artery forceps 19. Towel clamps sponge holding 20. Kidney trays 21. Instrument's tray (Large) Along with container	02 04 01 01 01 01 02 02 01 01 Each 01 02 02 04 01 02 01 01
35	VP Shunt	1. Sulemans subcutaneous shunt passer 2. Adult Size 3. Paeds Size 4. Hudson Brace - perforator 5. Burn bole (Various sizes) 6. Brain Cannula - 7. Adson's Dissector 8. Mastoid Refractor - Small, Medium, Large sizes 9. Peritoneal trocar 10. Cutting set - scissor-fine/assistant 11. Needle holder - fine large 12. Artery forceps - all size 13. Dissecting forceps - plain, tooth 14. Sponge holder 15. Kidney tray 16. Instrument tray - large size 17. Bowl (sponge) 18. Suction - nozzles - medium, small sizes Along with container	01 04 04 01 01 Each 01 02 01 Each 01 01 04 01 Each 01 01 01 01 Each
36	Kidney Stone	1. Djorden Forceps	01

	Removal Set	2. BoleocksRt angled long dissecting 01 3. Long scissors forceps 01 4. Long needle holders 02 5. Suction nozzles with guard 01 6. Morrison's refractor 01 Along with container
37	Appendectomy Surgery Set	1. Mayoscissor 14cm curved TC 01 2. Scalpel Handle #4 02 3. Allis tissue forceps 15 cm 04 4. Bab cocks tissue forceps 16 cm 02 5. Plain Forcep 01 6. Toothed Forcep 01 7. Artery Forcep Curved 04 8. Artery Forcep Straight 02 9. Czerny Retractor 02 10. Needle Holder 02 11. Suture Cutting Scissor 01 12. Kidney Tray 500ml 01 12. Along with container
38	Bone Set Large, Small and Medium	1. Complete set of Bone Cutter 01 2. Bone Nibblers 02 3. Chisel - osteotome, 02 4. Hammer – Periosteum 01 5. Elevator, 01 6. Bone levers etc. 04 7. Complete sets curettes 04 8. Bone holding forceps. 04 Along with container
39	Cutting Instrument Set	1. BP needle 01 2. A. Forceps 01 3. Allis Forceps 01 4. Sponge holding 01 5. Dissecting plain/tooth 1 Each 6. Towel Clips 04 7. Needle Holders 06 8. Kidney Tray 02 9. Bowels 02 10. Instruments Tray 01 11. Dissecting Box 01 12. Suture Cutting Scissors 01 13. C-Zarny Refractors Scissors 01 14. Langback 01 Along with container
40	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
41	Automatic pipette (Full Set)	Standard sizes branded
42	Inter locking Nail set (Full instruments)	1. Universal socket wrench 01 2. Hex driver for 4.5 mm & 5mm screw 01 3. Hex driver for 6.4mm screw 01 4. Tracer for 5mm screw 01 5. Guide wire 2.0mm x 900mm Long 01 6. Guide wire 3.0 mm x 900mm Long 01 7. Guide wire 2.0 mm x 900mm Long with Tip 01 8. Open End Wrench 01 9. Supine Driver 01 10. T- Handle 01 11. Driver/ Extractor 01 12. Skin Protector 01 13. Bone AWL 01 14. Tapered Reamer 01 15. Proximal Drill Guide for Femoral Nails 01 16. Slide Hammer 01 17. Drill Sleeve (Long) 8.0mm DIA 01 18. Drill Sleeve (Short) 8.0mm DIA 01 19. Trocar for Drill Sleeve 01 20. Drill Bit 305mm Long 3.2mm 01 21. Drill Bit 305mm Long 4.8mm 01
43	Small Fragment Set	1. Drill Bit 3.2mm 01

		2. Drill Bits 4.5mm 01 3. Bone Tap 6.5mm 01 4. Bone Tap 4.5mm 01 5. Tap Sleeve 3.5mm 01 6. Tap Sleeve 4.5mm 01 7. Drill sleeve for round hole plate 01 8. Tap handling coupling 01 9. Counter sink 4.5mm 01 10. Neutral and loaded Drill Guide 3.2/4.5mm 01 11. Insert sleeve 4.5/3mm 02 12. Pointed Drill guide 01 13. Socket Wrench 11mm 01 14. Malleolar counter sink coupling 01 15. Hexagonal screw driver 4.5mm 01 16. Hexagonal screw driver shaft 4.5mm 01 17. Combination wrench 11mm 01 18. Depth gauge for 4.5mm and 6.5mm screws 01 19. Sharp hook 01 20. Screw holding forceps 01 21. Bending template 5H,7H,9H 03 22. Compression device 8mm 01 23. Plate bender large 01 24. Pin wrench 01
44	Large Fragment Set	1. Drill Bit % 3.5 01 2. Drill Bits %2.5 01 3. Small counter sink 01 4. Small Hexagonal screw driver W/Holding sleeve 01 5. Small hexagonal screw driver W/End coupling fit 01 6. Insert sleeves 3.5mm/2.5mm 02 7. Periosteal elevator small straight edge 01 8. Bone tap 3.5mm/1.25mm pitch cortex 01 9. Bone tap 4.0mm/1.75mm pitch cancellous 01 10. Drill guide and drill sleeve for 2.0mm bit 01 11. Tap sleeve 3.5mm and drill sleeve 2.5mm 01 12. Tap sleeve 3.5mm and drill sleeve 2.7mm 01 13. Neutral and loaded drill guide 3.5mm 01 14. Small Hoffman retractor 6mm 01 15. Small Hoffman retractor 8mm 01 16. Self-centering bone holding forceps 02 17. Reduction forcep 02 18. Bending plier 01 19. Hoffman retractor w/broad shank 01 20. Depth gage for 2.7-4.0mm screws 01 21. Sharp hook 01 22. Bending template 7H,9H 02 23. Plate bender small 01 24. Tap handle quick or coupling 01

45	DHS set	1. Guide pin with thread 03 2. H H S angle guide 01 3. DHS Triple reamer 01 4. Impactor 02 5. Tap for DHS 01 6. Coupling screw for plate insertion with guide shaft 01 7. Coupling screw or screw removal 01 8. Quick coupling handle 01 9. Reverse measuring device 01 10.Centering sleeve for tap 01 11.Centering sleeve for wrench 01 12.DCS triple reamer 01 13.DCS angled guide 01
46	Obstetric surgery set minor and major	1. Metzenbaum's scissors curved 7" 01 2. Ditto 5/4" 01 3. Scissor straight sharp/blunt 5 1/2" 01 4. Mayo's scissor straight 6 1/2" 01 5. Ditto curved 5 1/2" 01 6. Ditto curved 6 1/2" 01 7. Littauer's stitch scissor, hook end 5" 01 8. Wire cutting scissors 01 9. Dissecting forceps serrated points 5" 01 10. Ditto 8" 01 11. Maingot's Dissecting forceps serrated points 11" 01 12. Treves Dissecting forceps 1x2 teeth 5" 01 13. Waugh's Dissecting forceps fine 1x2 teeth 8" 01 14. Mayo's tissue grasping forceps 9" 01 15. Crile artery forceps straight 5" 18 16. Ditto curved 5/4" 24 17. Pean's artery forceps curved 6 1/2" 18 18. Ochsner's artery forceps tenaculum points 6 1/2" 12 19. Backhaus towel clips 5" 12 20. Foerster's sponge forceps straight 9 1/2" 06 21. Ditto curved 9 1/2" 06 22. Balfour's abdominal retractor, 7" opening, 2 1/2" deep lateral blade x 1 3/4" centre blade 01 23. Set (of 5 sizes) deaver's retractor 01 24. Walton's malleable cooper retractor 1 1/2" x 12" 01 25. Ditto 2" x 12" 01 26. Morris retractors, blade 2" deep x 2 1/2" wide 01 27. Richardson's retractor, blade 3/4" x 1 3/4" 02 28. Volkmann's retractor, 4 prong blunt 02 29. Ditto, 4 prong sharp 02 30. Pair parker's double ended retractors, small 5/8" wide x 5" 01 31. Durham's retractor, blade 5/8" wide, 01 32. Dupuytren's aneurysm needle and ligature carrier, curved to right 01 33. Ditto curved to left 01 34. Allis tissue forceps, 5x6 teeth, 6" 12 35. Babcock's tissue forceps 6 1/4" 06 36. Probe, with eve silver 6" 03

		37.Ochsner's Trocar 6mm diam	01
		38.Poole's abdominal suction tube	01
		39.Crile-woods needleholder,6", with diamond jaws	02
		40. Hagar's needleholders,7", with diamond jaws	02
		41. Ditto 8", with diamond jaws	02
		42.Graves Specula Small Size	02
		43. Ditto medium size	02
		44. Ditto large size	02
		45. Jayle's self-retaining retractor	02
		46.Auvard's vaginal speculum weighted	01
		47. Sims duckbill speculum, double ended, medium size	01
		48. Doyens flat retractor, blade 4"x1 1/8"	02
		49. Doyens rectangular retractor, medium size	02
		50.Golpe's Vulva retractor	01
		51. Bozemann's uterine dressing forceps 9/2"	02
		52. Foerster's sponge holding forceps 9 1/2"	06
		53.Heywood smith's Ovum forceps	02
		54.Wilson's Vulsellum forceps,1x1 teeth,9/2"	06
		55. Teale's Vulsellum forceps,straight 3x3 teeth,9"	02
		56. Uterine Vulsellum forceps,2x2 teeth,10"	02
		57. Doyen's myoma screw	01
		58..Simpson's uterine sound,graduates in inches	01
		59. Randall's endometrial biopsy curette,luer-cone	01
		60. Van doren's uterine biopsy forceps,10 1/2"	01
		61. Leech-Wilkinson's uterine biopsy forceps,8"	01
		62. B.P Scalpel handle No.4	02
		63. Scissor straight sharp/blunt 5 1/2"	02
		64. Mayo's scissor straight 6 1/2"	01
		65. Ditto curved 6 1/2"	01
		66. Wire cutting scissor 5"	01
		67. Dissection forceps,serrated points 5"	02
		68. Vaginal Dissection forceps,with finger groove,serrated	Ends 9 1/2"
			01
		69. Ditto,tenaculum points,8 1/2"	01
		70. Millin's dissection forceps,3x4 teeth,9"	01
		71.Backhaus towel clips 5"	06
47	Dental Instrument complete Set	INSTRUMENT SET DENTAL SURGERY Basic instrument set for use in the dental surgery room.	
		1. Probe single ended perio CPTN-C	04
		2. Spatula double ended No 8	02
		3. Spatula double ended No 3	02
		4. Spatula double ended 8 x Alginate/Plaster metal Curved	02
		5. Instrument for plastics	04
		6. Excavator double ended 127/128	04
		7. Excavator double ended 131/132	04
		8. Forceps tissue tweezer type College Fig 8 plain	06
		9. Carver Ward 2	02
		10. Scaler balanced grip H4	02
		11. Scaler balanced grip H5	02
		12. Scaler balanced grip H7	02

	13. Scaler balanced grip H9	02
	14. Scaler balanced grip Towner U15	02
	15. Scaler balanced grip Jaquette 2	02
	16. Scaler balanced grip Jaquette 3	02
	17. Scaler balanced grip H6/7	02
	18. Scaler Octagonal H4	02
	19. Scaler Octagonal H5	02
	20. Scaler Octagonal H6	02
	21. Scaler Octagonal H8	02
	22. Scaler Octagonal H9	02
	23. Scaler Octagonal TownerU15	02
	24. Scaler Octagonal Jaquette 2	02
	25. Scaler Octagonal Jaquette 3	02
	26. Scaler Gracey Curette double ended ½	02
	27. Scaler Gracey Curette double ended ¾	02
	28. Scaler Gracey Curette double ended 5/6	02
	29. Scaler Gracey Curette double ended 9/10	02
	30. Scaler Gracey Curette double ended 13/14	02
	31. Scaler MacFarlane Balanced Tip MFO/1	02
	32. Scaler MacFarlane Balanced Tip MF2/3	02
	33. Scaler MacFarlane Balanced Tip MF4/5	02
	34. Burnisher DE AM (W) 1	02
	35. Burnisher DE AM (W) 1L	02
	36. Amalgam Plugger Blacks 0/1	02
	37. Amalgam Plugger Blacks 1/2	02
	38. Elevator Apical Straight	02
	39. Elevator Apical Left	02
	40. Elevator Apical Right	02
	41. Elevator Coupland 1	02
	42. Elevator Coupland 2	02
	43. Elevator Coupland 3	02
	44. Elevator Warwick James Straight	02
	45. Elevator Warwick James Left	02
	46. Elevator Warwick James Right	02
	47. Elevator Cryer 30 left	02
	48. Elevator Cryer 31 right	02
	49. Forceps Artery Spencer Wells 5" straight	02
	50. Forceps Artery Spencer Wells 5" curved	02
	51. Forceps Mosquito 5" straight	02
	52. Forceps Extraction Upper Incisor	02
	53. Forceps Extraction Upper Molars Right	02
	54. Forceps Extraction Upper Molars Left	02
	55. Forceps Extraction Lower Molars	02
	56. Forceps Extraction Lower Roots	02
	57. Forceps Extraction Small Lower Roots	02

	58. Forceps Extraction Lower Premolars	02
	59. Forceps Extraction Upper Roots	02
	60. Forceps Extraction Childrens Lower Teeth	02
	61. Forceps Extraction Childrens Lower Molars/General	02
	62. Forceps Extraction Childrens Upper Incisors/Canines	02
	63. Forceps Extraction Childrens Upper Molars	02
	64. Forceps Extraction Childrens Upper General	02
	65. Amalgam Plugger Blacks 0/1	04
	66. Luxation Kit	
	67. Ceramicolor Probe No 6	06
	68. Margin Trimmer 15-11	03
	69. Placer Calcium Hydroxide 15-90	04
	70. Gingival Cord Packer Yardley 15-66-6	03
	71. Root Canal Spreader Heat Carrier Anterior	02
	72. Root Canal Spreader Heat Carrier Posterior	02
	73. Periosteal Elevator Prichard	02
	74. Periosteal Elevator Molt	02
	75. Periosteal Elevator Fine	02
	76. Periosteal Elevator Howard	02
	77. Forceps Tissue Sempkin-Taylor Straighy 12.5cm	02
	78. Retractor tissue Austin	02
	79. Retractor Tongue and Cheek University of Minnesota	02
	80. Needle Holder Mayo Hegar 16cm	02
	81. Forceps Halsted Mosquito Curved 12cm	02
	82. Forceps Halsted Mosquito Straight 12cm	02
	83. Tray Dental Instrument Unperforated 28 x 18 cm	06
	84. Mirror Handles Round Stainless Steel	10
	85. Mirror Heads No 4 plane (12)	06
	86. Explorer single Ended EXS 6	02
	87. Explorer Single Ended EXS 6A	02
	88. Matrix System Intro	01
	89. Scissors Straight 5" Sharp/Sharp	02
	90. Scissors Straight Crown Bee Bee No 12	02
	91. Scissors Curvedt Crown Bee Bee No 9	02
	92. Syringe Dental Cartridge S/S 2.2 ml	02
	93. Amalgam Carrier 5X Hampel Complete	02
	94. Mortar & Pestle Glass 2 " Dia.	02
	95. Dappen Dish Glass Clear	06
	96. Glass slab	02
	97. Spatula mixing filling material	02
	98. Mixing Pad reuseable	02

**TECHNICAL EVALUATION CRITERIA FOR MACHINERY & EQUIPMENT,
INSTRUMENTS & OTHER HOSPITAL SUPPLIES, ETC FOR THE YEAR 2021-2022**
(Maximum Allocable Marks Score = 70 marks)

Technical Evaluation Criteria for the Purchase of Category A Equipment for FY 2021-2022

Firm Name: _____

Bid Reference No: _____

S. No.	Description of Variables	Allocated Points/Marks
A	Product / Manufacturer Evaluation Parameters	
1	Compliance Sheet in attached Viz-a-Viz format / form.	No Marks
1.1	Product General Information	
1.2	Ref. No of item in SBD Schedule of Requirement	
1.3	Name of equipment	
2	Conformance to Specification	
2.1	Fully compliance with the required specifications as per Statement of Requirement. Minor deviations may be accommodated up to 4, subject to the condition that main function and performance in any aspect would not be affected. More than 4 minor deviation will be considered as major deviation and the bidder will be considered as non-responsive for the quoted item. (One mark for each deviation will be deducted).	25
3	Valid Product International Certification	3 (28)
3.1	Certificate of US Food and Drug Administration (USFDA) 510K of the quoted model.	Two certificates are mandatory having no marks while producing three certificates will get 3 marks.
3.2	Certificate of European community Medical devices directive (CEMDD/IVD98/79EC) (Full Quality Assurance or Product Quality Assurance) for the quoted model issued by IAF accredited body. Certificate of conformity, Declaration of Conformity, CE Technical Documentation review, Compliance Report etc will not be considered as CE certificate.	
3.3	Certificate of Ministry of health labor and welfare Japan (MHLW) of the quoted model. (Translated English Version)	
4	Manufacturer Performance	
4.1	Valid ISO 13485 Medical Devices Quality Management Systems Certificate issued from IAF accredited body.	2 (30)
4.2	Valid IEC 601-1 / ISO 60601 Certificate (applies to the basic safety and essential performance of medical electrical equipment and medical electrical systems for use in the home healthcare environment).	2 (32)
4.3	Valid OSHAS 18001 / ISO 45001 Occupational Health & Safety Series from IAF accredited body.	2 (34)
4.4	Weightage for local Pakistani manufacturer.	4 (38)
5	After Sale Product / Bidder Local Performance	
5.1	One mark for each after sale satisfactory performance certificate (verifiable) of the firm in last six years, on letter head, signed and stamped for the quoted model or previous provided model of equipment from the public sector medical institution of Pakistan. Performance certificate shall be coupled with supply order / purchase order from public sector medical institution.	5 (43)
	One mark for each after sale satisfactory performance certificate (verifiable) of the firm in the last six years, on letter head for the quoted model or previous provided model of equipment from the teaching level private sector medical	

5.2	institution of Pakistan. The hospital must be recognized from Pakistan Medical Commission (PMC). Performance certificate shall be coupled with supply order / purchase order from teaching level private sector medical institution.	4 (47)
6	Warranty	
6.1	Warranty Period of three years both with spare parts and services & Next two-year services only without parts, from the date of Installation / Commissioning.	No marks, being Mandatory Parameter
A	Total score of the Product / Manufacturer Evaluation Parameters	47
B	Firm Evaluation Parameters	
1	Personnel/Human Resource	
1.1	Diploma of Associate Engineer (DAE) in electrical / electronic / biomedical / mechatronics / mechanical / industrial. DAE certificate must be submitted. (0.5 mark for each certificate)	1
1.2	Graduate Engineer with PEC Registration in electrical / electronics, biomedical / mechatronics / mechanical / industrial. PEC registration card of the engineer must be submitted. (1 mark for each Engineer)	3 (4)
1.3	BSc (hons) Electronics / MSc Electronics / B-Tech (hons) in electrical / electronic / biomedical / mechatronics / mechanical / industrial. Degree of BSc / MSc / B-Tech (hons) must be submitted. (0.5 mark for each)	1 (5)
1.4	Factory trained technical staff on the quoted Products. (To be verified from the visa and passport). (1 mark for each staff)	2 (7)
2	Workshop facility Testing/ Calibration tools of Equipment	
2.1	Availability of workshop in Khyber Pakhtunkhwa to be verified with Ownership / Rent Agreement with Owner / Rent Agreement with Company Name.	No marks, being Mandatory Parameter
2.2	List of related tools available at workshop. Details shall be submitted with bid. (List Attached in SBD)	2 (9)
2.3	List of Testing and Calibration tools for the quoted items available at workshop. Details shall be submitted with bid.	2 (11)
2.4	Detail of Spare parts availability at workshop for the quoted items. Details shall be submitted with bid.	2 (13)
3	Firm Financial Strength	
3.1	Annual Sales tax returns for last four years (0.5 mark for each year).	2 (15)
3.2	Annual Income tax returns for four years (0.5 mark for each year).	2 (17)
3.3	Last two years Audited Balance Sheet Duly attested by Chartered Accountant. Marks will be allocated on the basis revenue annual turnover, 100 M or above will be awarded 2 marks in last 3 years. Rs.50 to Rs.99.9 M will be awarded 1 mark in last 3 years. Less than Rs.50M will be awarded 0 mark.	2 (19)
4	Firm Registration	
4.1	Firm registration at relevant forum (SECP / Registrar of Firm / FBR).	Mandatory
4.2	Firm registered with DRAP (Drug Regularity Authority of Pakistan) to import / manufacture of medical devices.	2 (21)
4.3	Valid ISO 9001 Quality Management Certificate of the firm from PNAC accredited body.	2 (23)
B	Total Score of the Firm Evaluation Parameters	23
A+B	Total Score (A + B)	(47+23) = 70

Technical Evaluation Criteria for the Purchase of Category-B Equipment for FY 2021-2022

Firm Name: _____

Bid Reference No: _____

S. No.	Description of Variables	Allocated Points/Marks
A	Product / Manufacturer Evaluation Parameters	
1	Compliance Sheet in attached Viz-a-Viz format / form.	No Marks
1.1	Product General Information	
1.2	Ref. No of item in SBD Schedule of Requirement	
1.3	Name of equipment	
2	Conformance to Specification	
2.1	Fully compliance with the required specifications as per Statement of Requirement. Minor deviations may be accommodated up to 4, subject to the condition that main function and performance in any aspect would not be affected. More than 4 minor deviation will be considered as major deviation and the bidder will be considered as non-responsive for the quoted item. (One mark for each deviation will be deducted).	25
3	Valid Product International Certification	6 (31)
3.1	Certificate of US Food and Drug Administration (USFDA) 510K of the quoted model.	One certificate is mandatory having no marks while producing other two certificates will get 3 marks each.
3.2	Certificate of European community Medical devices directive (CEMDD/IVD98/79EC) (Full Quality Assurance or Product Quality Assurance) for the quoted model issued by IAF accredited body. Certificate of conformity, Declaration of Conformity, CE Technical Documentation review, Compliance Report etc will not be considered as CE certificate.	
3.3	Certificate of Ministry of health labor and welfare Japan (MHLW) of the quoted model. (Translated English Version)	
4	Manufacturer Performance	
4.1	Valid ISO 13485 Medical Devices Quality Management Systems Certificate issued from IAF accredited body.	2 (33)
4.2	Valid IEC 601-1 / ISO 60601 Certificate (applies to the basic safety and essential performance of medical electrical equipment and medical electrical systems for use in the home healthcare environment).	2 (35)
4.3	OSHAS 18001 / ISO 45001 Occupational Health & Safety Series from IAF accredited body.	2 (37)
4.4	Weightage for local Pakistani manufacturer.	4 (41)
5	After Sale Product / Bidder Local Performance	
5.1	One mark for each after sale satisfactory performance certificate (verifiable) of the firm in last six years, on letter head, signed and stamped for the quoted model or previous provided model of equipment from the public sector medical institution of Pakistan. Performance certificate shall be coupled with supply order / purchase order from public sector medical institution.	4 (45)
5.2	One mark for each after sale satisfactory performance certificate (verifiable) of the firm in the last six years, on letter head for the quoted model or previous provided model of equipment from the teaching level private sector medical institution of Pakistan. The hospital must be recognized from Pakistan Medical Commission (PMC). Performance certificate shall be coupled with	4 (49)

	supply order / purchase order from teaching level private sector medical institution.	
6	Warranty	
6.1	Warranty Period of three years both with spare parts and services & Next two-year services only without parts, from the date of Installation / Commissioning.	No marks, being Mandatory Parameter
A	Total score of the Product / Manufacturer Evaluation Parameters	49
B	Firm Evaluation Parameters	
1	Personnel/Human Resource	
1.1	Diploma of Associate Engineer (DAE) in electrical / electronic / biomedical / mechatronics / mechanical / industrial. DAE certificate must be submitted. (0.5 mark for each certificate)	1
1.2	Graduate Engineer with PEC Registration in electrical / electronics, biomedical / mechatronics / mechanical / industrial. PEC registration card of the engineer must be submitted. (1 mark for each Engineer)	3 (4)
1.3	BSc (hons) Electronics / MSc Electronics / B-Tech (hons) in electrical / electronic / biomedical / mechatronics / mechanical / industrial. Degree of BSc / MSc / B-Tech (hons) must be submitted. (0.5 mark for each)	1 (5)
2	Workshop facility Testing/ Calibration tools of Equipment	
2.1	Availability of workshop in Khyber Pakhtunkhwa to be verified with Ownership / Rent Agreement with Owner / Rent Agreement with Company Name.	No marks, being Mandatory Parameter
2.2	List of related tools available at workshop. Details shall be submitted with bid. (List Attached in SBD)	2 (7)
2.3	List of Testing and Calibration tools for the quoted items available at workshop. Details shall be submitted with bid.	2 (9)
2.4	Detail of Spare parts availability at workshop for the quoted items. Details shall be submitted with bid.	2 (11)
3	Firm Financial Strength	
3.1	Annual Sales tax returns for last four years (0.5 mark for each year).	2 (13)
3.2	Annual Income tax returns for four years (0.5 mark for each year).	2 (15)
3.3	Last two years Audited Balance Sheet Duly attested by Chartered Accountant. Marks will be allocated on the basis revenue annual turnover, 100 M or above will be awarded 2 marks in last 3 years. Rs.50 to Rs.99.9 M will be awarded 1 mark in last 3 years. Less than Rs.50M will be awarded 0 mark.	2 (17)
4	Firm Registration	
4.1	Firm registration at relevant forum (SECP / Registrar of Firm / FBR).	Mandatory
4.2	Firm registered with DRAP (Drug Regularity Authority of Pakistan) to import / manufacture of medical devices.	2 (19)
4.3	Valid ISO 9001 Quality Management Certificate of the firm from PNAC accredited body.	2 (21)
B	Total Score of the Firm Evaluation Parameters	21
A+B	Total Score (A + B)	(49 + 21) = 70

Technical Evaluation Criteria for the Purchase of Category C and D Items for FY 2021-2022

Firm Name: _____

Bid Reference No: _____

S. No.	Description of Variables	Allocated Points
A	Product Evaluation Parameters	
1	Name of equipment	
2	Conformance to the specification subject to the clearance on Sample test	
2.1	Total compliance with specification given in statement of Requirement subject to the clearance on sample test by the Inspection Committee. Excellent Sample	40
2.2	Total compliance with specification given in statement of Requirement subject to the clearance on sample test by the Inspection Committee. Good Sample	30
2.3	Total compliance with specification given in statement of Requirement subject to the clearance on sample test by the Inspection Committee. Satisfactory Sample	15
2.4	Sample rejected by inspection committee or low-quality sample provided, the firm will be considered as non-responsive for the quoted item and no marks will be awarded.	0
3	Manufacturer Performance	
3.1	Valid CE Certificate of the manufacturer for the quoted items.	2 (54)
3.2	Valid FDA for the quoted items.	2 (56)
3.3	Valid JIS / MHLW of the manufacturer for the quoted items.	2 (58)
3.4	Valid ISO 9001 Quality Management Certificate from PNAC accredited body. Certificate from IAF accredited body for imported items.	2 (60)
3.5	Valid ISO 14001 Environmental Certificate from PNAC accredited body. (The certificate must be issued to the manufacturer plant in case of local manufacturer). Certificate from IAF accredited body for imported items.	2 (62)
4	After Sale Past Performance	
4.1	One mark for each after sale satisfactory performance certificate (verifiable) of the firm on letter head, signed and stamped from the public sector medical institution / hospital for the quoted item. Performance certificate shall be coupled with supply order / purchase order from public sector medical institution.	6 (46)
4.2	One mark for each after sale satisfactory performance certificate (verifiable) of the firm on letter head of private medical institution / hospital for the quoted item. The hospital must be recognized from Pakistan Medical Commission (PMC). The satisfactory performance certificate of non-recognized institution from PMC will not be considered. Performance certificate shall be coupled with supply order / purchase order from teaching level private sector medical institution.	6 (52)
5	Warranty	
5.1	Category C One-year warranty for instruments and three year for beds & other hospital Supplies with replacement/repair of product.	No marks, being Mandatory Parameter
5.2	Category D	No marks, being Mandatory Parameter

	One-year warranty for bedding clothing & other hospital supplies with replacement.	
A	Total score of the Product Evaluation	62
B	Firm / bidder Evaluation Parameters	
1	Category C The bidder will have to give valid proof of being manufacturer / importer. (Embassy attested authorization for importer is mandatory)	No marks, being Mandatory Parameter
2	Category D The bidder will have to give valid proof of being manufacturer / importer / authorized dealer.	No marks, being Mandatory Parameter
3	Firm Financial Strength	
3.1	Annual Sales tax returns for last three years (1 mark for each year).	3
3.2	Annual Income tax returns for last two years (1 mark for each year).	2 (5)
3.4	Last three years Audited Balance Sheet Duly attested by Chartered Accountant. Marks will be allocated on the basis revenue annual turnover, 30 M or above will be awarded 3 marks in last 3 years. Rs.20 to Rs.29.9 M will be awarded 2 marks in last 3 years. Less than Rs.20M will be awarded 1 mark.	3 (8)
4	Office / Workshop facility	
4.1	Availability of office/workshop in Khyber Pakhtunkhwa to be verified with Ownership / Rent Agreement with Owner/ Rent Agreement with Company Name.	No marks, being Mandatory Parameter
B	Total Score of the Firm / Bidder Evaluation Parameters	
A+B	Total Score (A+B)	(62+8) = 70

Technical Evaluation Criteria for the Purchase of Category E items for FY 2021-22

Firm Name: _____

Bid Reference No: _____

S. No.	Description of Variables	Allocated Points
A	Product Evaluation Parameters	
1	Product General Information	
1.1	Ref. No of item in SBD Schedule of Requirement	
1.2	Name of equipment	
2	Conformance to the specification subject to the clearance on Sample test	
2.1	Fully compliance with the required specifications as per Statement of Requirement.	25
3	Manufacturer Performance	
3.1	Valid CE Certificate of the manufacturer for the quoted items.	4 (29)
3.2	Valid ISO 9001 Quality Management Certificate from PNAC accredited body. Certificate from IAF accredited body for imported items.	4 (33)
3.3	Valid ISO 14001 Environmental Certificate from PNAC accredited body. (The certificate must be issued to the manufacturer plant in case of local manufacturer). Certificate from IAF accredited body for imported items.	4 (37)
4	After Sale Past Performance	
4.1	One mark for each satisfactory performance certificate (verifiable) of the firm on letter head or signed and stamped from the public sector organization for the quoted item/brand. Performance certificate shall be coupled with supply order / purchase order. Performance certificate shall be coupled with supply order / purchase order. Supply Order / Purchase Order / Delivery challan will not be considered as satisfactory performance certificate.	10 (47)
4.2	One mark for each satisfactory performance certificate (verifiable) of the firm on letter head of private sector organization for the quoted item/brand. Performance certificate shall be coupled with supply order / purchase order. Performance certificate shall be coupled with supply order / purchase order. Supply Order / Purchase Order / Delivery challan will not be considered as satisfactory performance certificate.	8 (55)
5	Warranty	
5.1	Warranty Period of three years both with spare parts and services. Compressor warranty must be five years.	No marks, being mandatory parameter
A	Total score of the Product Evaluation	55
B	Firm / bidder Evaluation Parameters	
1	The bidder will have to give valid proof of being manufacturer / importer / authorized dealer.	No marks, being mandatory parameter
2	Firm Financial Strength	
2.1	Annual Sales tax returns for last 3 years (1 mark for each year).	3
2.2	Annual Income tax returns for last 3 years (1 mark for each year).	3 (6)
2.3	Last three years Audited Balance Sheet Duly attested by Chartered Accountant. (1 mark for each year). Marks will be allocated on the basis revenue annual turnover, 20 M or above will be awarded 3 marks in last 3 years. Rs.10 to Rs.19.9 M will be awarded 2 marks in last 3 years. Less than Rs.10 M will be awarded 1 mark.	3 (9)

3	Human Resources	
3.1	Simple technician with a certificate / diploma. (1 mark for each certificate)	2 (11)
3.2	Diploma of Associate Engineer (DAE) in electrical / electronic / mechatronics or relevant field. DAE certificate must be submitted. (2 marks for each certificate)	4 (15)
4	Office / Workshop facility	
4.1	Availability of office/workshop in Khyber Pakhtunkhwa to be verified with Ownership / Rent Agreement with Owner/ Rent Agreement with Company Name.	No marks, being mandatory parameter
B	Total Score of the Firm / Bidder Evaluation Parameters	15
A+B	Total Score (A+B)	(55+15) = 70

Technical Evaluation Criteria for the Purchase of Category F Items for FY 2021-22

Firm Name: _____

Bid Reference No: _____

S. No.	Description of Variables	Total points
A	Product Evaluation Parameters	
1	Product General Information	
1.1	Ref. No of item in SBD Schedule of Requirement	
1.2	Name of equipment	
2	Conformance to Specification	
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 would not affect. However, up to four marks will be deducted.	25
2.2	Full load test report from manufacturer for the quoted model.	3 (28)
3	Product / Firm Certification	
3.1	Authorization certificate from the manufacturer if the bidder is not a manufacturer.	No marks, being
3.2	Registration with PEC in Codes ME03 & ME04. 3 Marks for ME 03 & ME 04 respectively for each code.	6 (34)
3.3	Valid CE certificate for the quoted model	3 (37)
4	After Sale Product Local Performance	
4.1	One marks for each satisfactory performance certificate (verifiable) of the firm on letter head, signed and stamped from the public sector organization for quoted capacity generator. Performance certificate shall be coupled with supply order / purchase order from public sector organization.	6 (43)
4.2	One mark for each satisfactory performance certificate (verifiable) of the firm on letter head of private organization for the quoted capacity generator. Performance certificate shall be coupled with supply order / purchase order from private sector organization.	6 (49)
5	Manufacturer Performance	
5.1	Valid ISO 14001 or equivalent (Environmental Certificate).	2 (51)
5.2	Valid ISO 9001 Quality management Certificate.	2 (53)
5.3	Comprehensive Warranty of 12 months (irrespective of running hours) with parts and services from date of commissioning.	No marks, being
A	Total score of the Product Evaluation Parameters	53
B	Firm Evaluation Parameters	
1	Personnel/Human Resource	
1.1	Diploma of Associate Engineer (DAE) in electrical / electronic / mechatronics / mechanical / industrial. (1 mark for each DAE)	2
1.2	Graduate Engineer with PEC Registration in electrical / electronic / mechatronics / mechanical / industrial. (2 marks for each engineer)	4 (6)
2	Workshop facility / Mobile van / Training	
2.1	Fully Functional workshop at Peshawar.	3 (9)
2.2	Mobile after sales van in Khyber Pakhtunkhwa for on sight repair.	2 (11)
3	Firm Financial Strength	
3.1	Annual Sales tax returns for last two years (1 mark for each year)	2 (13)
3.2	Annual Income tax returns for last year (1 mark for each year).	2 (15)

3.3	Last two-year Audited Balance Sheet Duly attested by Chartered Accountant. Marks will be allocated on the basis revenue annual turnover, 50 M or above will be awarded 2 marks in last 2 years. Rs.10 to Rs.49.9 M will be awarded 1 mark in last 2 years.	2 (17)
B	Total Score of the Firm Evaluation Parameters	17
A+B	Total Technical Score	(53 +17) = 70

Technical Evaluation Criteria for the Purchase of Category-G items for FY 2021-2022

Firm Name: _____

Bid Reference No: _____

S. No.	Description of Variables	Allocated Points
A	Product / Manufacturer Evaluation Parameters	
1	Product General Information	
1.1	Ref. No of item in SBD Schedule of Requirement	
1.2	Name of equipment	
2	Conformance to Specification of fabrication	
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 would not affect.	25
3	Manufacturer Performance	
3.1	Valid ISO 9001 Quality Management Certificate.	2 (27)
3.2	Valid CE Certificate for the quoted item.	2 (29)
4	After Sale Product Local Performance	
4.1	One mark for each after sale satisfactory performance certificate (verifiable) of the firm on letter head or signed and stamped from the public sector organization / hospital for the quoted item. Performance certificate shall be coupled with supply order / purchase order. Supply Order / Purchase Order / Delivery challan will not be considered as satisfactory performance certificate.	10 (39)
4.2	One mark for each after sale satisfactory performance certificate (verifiable) of the firm on letter head of private sector organization / hospital for the quoted item. Performance certificate shall be coupled with supply order / purchase order. Supply Order / Purchase Order / Delivery challan will not be considered as satisfactory performance certificate.	8 (47)
5	Warranty	
5.1	Warranty Period of three years both with spare parts and services & Next two-year services only without parts, from the date of Installation / Commissioning. Two Years battery warranty.	No marks, being Mandatory
A	Total score of the Product / Manufacturer Evaluation Parameters	47
B	Firm Evaluation Parameters	
1	Personnel/Human Resource	
1.1	Diploma of Associate Engineer (DAE) in electrical / electronic / mechatronics / mechanical / industrial. DAE certificate must be submitted. (1 mark for each certificate)	2
1.2	Graduate Engineer with PEC Registration in electrical / electronic / mechatronics / mechanical / industrial. PEC card of the engineer must be submitted. (2 marks for each certificate)	4 (6)
2	Workshop facility Testing/ Calibration tools of Equipment	
2.1	Availability of workshop in Khyber Pakhtunkhwa to be verified with Ownership / Rent Agreement with Owner / Rent Agreement with Company Name.	No marks, being Mandatory
2.2	Availability of workshop at National level to be verified with Ownership / Rent Agreement with Owner/ Rent Agreement with Company Name.	2 (10)
2.3	List of Tools, Testing and Calibration tools for the quoted items available at workshop. Details shall be submitted with bid.	2 (12)

2.4	Detail of Spare parts availability at workshop for the quoted items (inventory list). Details shall be submitted with bid.	2 (14)
3	Firm Financial Strength	
3.1	Annual Income tax returns for last 3 years (1 mark for each year).	3 (16)
3.2	Last Two years Audited Balance Sheet Duly attested by Chartered Accountant (2 mark for each year). Marks will be allocated on the basis revenue annual turnover, 50 M or above will be awarded 4 marks in last two years. Rs.25 M to Rs.49.9 M will be awarded 2 marks in last 2 years. Rs.10 M to Rs.24.9 M will be awarded 1 mark.	4 (18)
4	Firm Registration	
4.1	Firm must be registered with PEC (Pakistan Engineering Council) in category EE11. (For solar systems)	No marks, being Mandatory
B	Total Score of the Firm Evaluation Parameters	18
A+B	Total Score (A + B)	(47+18) = 70

The bidders will quote the technical bid quotation on the format / form given below.

Technical Bid Quotation Form / Vis-à-vis Format for Category A&B

Name of Equipment / Item:	
Model:	
Make:	
Country of Origin:	
Category of equipment / item:	
S. No in SBDs:	
Comparative of Required Specification and Quoted Specification	
Required Specification (Procurement Cell DGHS)	Quoted Specification of the bidder

Explanation of the quotation form:

1. All the bidders must submit the quotation for category A and B items on the above form.
2. All the bidders must make a comprehensive sheet with all the required specifications. (Compare all the quoted specification to the required specification).
3. Attached the supported documents i.e Broucher / Catalogue clearly highlighted the specifications mention in the technical quotation.
4. The successful bidders shall provide complete technical manual and operation manual (soft and hard) to the incharge of central workshop Peshawar, Procurement Cell and all regional workshops.

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.

Details of tools

S.No	Item name
1.	Analog and Digital multimeter
2.	Precision screwdrivers
3.	Hammers
4.	Tape measure
5.	Pliers
6.	Mini small ratchet wrench
7.	Straight screwdriver
8.	Phillips screwdriver
9.	Screwdriver handle & heads
10.	Allen keys sets all sizes
11.	Cutting Saw
12.	Spanner
13.	Digital electrical test pen
14.	Flexible rule
15.	Insulation tape
16.	Drill machine
17.	Protective Gloves
18.	Protective Caps
19.	Soldering wire
20.	Soldering Machine
21.	Heat gun
22.	Oscilloscope digital/Analog
23.	Clamp meter
24.	Ratchet set large
25.	Variation power supply
26.	Level
27.	Network cable tester
28.	Earth meter
29.	Smart tool kit for field work

Total Marks =2

Firm having minimum 15 tools will be awarded 1 mark

Firm having 15-29 tools will be awarded 2 marks

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 (Template for information only, shall be signed with 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 : a. Manufacturer, or b. Importer, or c. Both Manufacturer and importer. d. Authorized Agent/Dealer/Distributor For various items Offered for this bidding competition.	
2.	Please indicate the category/ies under which the Firm is applying for bidding a Machinery & Equipment b Instrument/ other Hospital supplies. c General items. d Office equipment e Bedding & Clothing etc f others	
3.	Please provide names, attested copies of CNICs , two recent attested photographs , valid street addresses in Pakistan, all landline and mobile phone numbers of: a Owner/Proprietor of the Firm. b Managing Director / CEO of the Firm; c Focal person officially made responsible and authorized by the Firm for day-to-day official Correspondence with Procurement cell DGHS. d (Please provide clear, legible and visible attested photocopies of all the requisite items mentioned items)	
4.	Please provide the following valid information Regarding applicant Firm: Complete street address of the: a. Head Office b. Main warehouse; and c. Valid & working official Landline Phone and d. Fax Numbers; and e. Mobile phone numbers of the Focal Person registered against his /her CNIC No. And name; and f. Valid and functional Email address; g. Official Website address /es .	

5.	<p>a. Please provide in original the bid security instrument along with the Financial Proposal in the sealed envelope in the form of valid Call Deposit Receipt / Bank Draft / Bank Guarantee of the requisite amount from a scheduled Bank of Pakistan in the name of Director General Health Services, Peshawar. Non- provision of bid Security shall render the bid as non -responsive.</p> <p>b. However, please provide an affidavit on judicial stamp paper of appropriate face value in the sealed Envelope of the technical proposal to the effect that the bid security of the required amount (without mentioning the amount of bid security) has been inside the sealed envelope of the financial bid except where flat rates in bid security has been demanded by the Directorate General Office.</p>
6.	<p>Please provide attested copies of the following Tax related mandatory documents:</p> <p>a National Tax Number (NTN) of the Firm (FTN) for Income Tax</p> <p>b Last year Income Tax Return of the Firm; and</p> <p>c Sales Tax Registration Certificate of the Firm; and Certificate of Professional Tax</p>
7.	<p>In case of being manufacturer, the Firm should provide attested copies of the following mandatory documents also:</p> <p>a Duly attested copy of valid Certificate from Chamber of Commerce of the respective country</p>
8	<p>In case of being importers, the Firm should provide attested copies of the following mandatory document/s also:</p> <p>Valid Authorization Certificate for the quoted items, duly attested by the Embassy concerned.</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/BSD.
- 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. Furthermore neither our principle/Manufacture is/are insolvent.
- 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) The undersigned has successfully completed all contracts assigned and has not violated the previous contract agreement with this department.
- 10) 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-A

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

Price Schedule format for Financial Bid of Machinery & Equipment, Instruments & other Hospital supplies etc. for the year 2021-22.

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

S.No	Serial No. of quoted item in Statement of Requirement of the DSBs 2010-21	Name of the item	Number of Items (Single Unite)	Rate offered per unit Rs. Inclusive of all taxes	Total Price Pak Rupees

Bid Form 4-B: Technical Bid Quotation Form / Vis-à-vis

Name of Equipment / Item:	
Model:	
Make:	
Country of Origin:	
Category of equipment / item:	
S. No in SBDs:	
Comparative of Required Specification and Quoted Specification	
Required Specification (Procurement Cell DGHS)	Quoted Specification of the bidder

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, Instrument and other Hospital supplies etc. 2021-22.

In response to advertisement related to the bidding process / competition regarding purchase and supply of machinery and equipment, instrument and other hospital supplies for 2021-22 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

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 (Template) (For successful bidders)

THIS RATE CONTRACT AGREEMENT is made and agreed today on _____ day of [Month], 2021-22 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 (**Name of equipment, Country of origin along with model at Rs.**) 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 bidding Documents i.e within 90 days from the date of issuance of supply order by the Purchasing Agency for items to be imported items while 60 days for locally manufactured items ; 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 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. The successful bidders shall provide complete technical manual and operation manual to the in charge of central workshop Peshawar all regional workshops.
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 2020-21 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 **30th June 2021**.
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%) 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 till warranty period.
15. WARRANTY: The supplier shall provide warranty on prescribed form in Bidding Documents 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: For delay in supply from one day up to fifteen days, a lump sum penalty amounting to three percent (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. 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. 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 Forfeiting the earnest money and performance guarantee of the Supplier related to this contract agreement; and 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 Initiating the process for and recommending for blacklisting of the Supplier under the rules with the Agencies; and 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.

19. INDEMNITY:

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. 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:

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. 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