

BID SOLICITATION DOCUMENTS

FOR

BLS / ACLS (BASIC LIFE SUPPORT / ADVANCE CARDIAC LIFE
SUPPORT) MANIKINS AND EQUIPMENTS.

DECEMBER 2023

ORIC

KHYBER MEDICAL UNIVERSITY

PESHAWAR,

(KHYBER PAKHTUNKHWA)

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KHYBER MEDICAL UNIVERSITY
Committed to Excellence in Academics & Research



TENDER NOTICE

The Khyber Medical University, Peshawar invites sealed tenders for purchase of following items from Manufacturers/Importers/Authorized Dealers/Sub Dealers duly registered with Sales Tax, Income Tax (who are on ACTIVE TAX PAYERS LIST of FBR) and Excise & Taxation Department of Khyber Pakhtunkhwa.

S#	Description of Items
1.	BLS /ACLS (Basic life support / Advance cardiac life support) Manikins/Medical items under Research project

- The method of selection will be single stage two envelopes procedure.
- The bidding documents including quantity, specification and detailed terms and conditions are available from the office of the undersigned (free of cost) from **29/11/2023 to 15/12/2023 (0800 Hours to 1530 Hours)**.
- The Bid may be dropped in the tender box placed in the KMU Administration Block, Peshawar positively by **15/12/2023 (1100 hours)**.
- The Bids/Technical Proposals will be opened in the KMU Committee Room on **15/12/2023 at 1130 hours** by the KMU Purchase Committee in the presence of the bidders or their representatives who choose to attend.
- Taxes will be deducted as per Govt: Rules.

Director ORIC

Khyber Medical University, Peshawar

OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION

PHASE-V, HAYATABAD, KHYBER PAKHTUNKHWA

 **091-9217258, 091-9217703**

 **091-9217704, 091-9217258**

KMU Media

10x2

Section – II TERMS & CONDITIONS / INSTRUCTIONS TO BIDDERS

- **Bidding Process:**

Authorized dealers / Manufacturers/ Suppliers shall be selected through an open competitive bidding process by single stage two envelopes procedure in accordance with Khyber Pakhtunkhwa Public Procurement Regulatory Authority (KPPRA) rules.

- **Eligibility Criteria:**

Bidders must give compliance to the below mentioned clauses as these are mandatory to be eligible for the bidding process.

- The authorized dealers / manufacturers / suppliers must be registered with Income Tax, Sales Tax, having NTN and being reflected as active taxpayer on the list of FBR. Relevant certificates must be attached.
- The bidder shall provide an undertaking that the organization has not been declared as a black listed authorized dealers / manufacturers / suppliers by any Governmental / Semi-Governmental institutions.
- Bid evaluation criteria mention in section VII.

- **General Conditions:**

- Sealed Envelope containing two envelopes clearly marked “**Technical Proposal**” and the other “**Financial Proposal**” must reach the Tender Box before the due date and time mentioned in tender. The tender should be in sealed cover envelop clearly written thereon “**Quotations for**” the name of the Firm/Service provider with full address and telephone/ fax number must be written on the back of the quotation. If the envelop is not sealed and marked as above, the University will not be responsible for misplacement or pre-mature opening of bid.
- Sealed **Technical Proposal envelope** should comprise of the following documents/proof.
 - Copy of registration with FBR, Sales Tax, KP Excise & Taxation Deptt:.
 - Bidding Documents without mentioning rates (each page signed and stamped by authorized person of the bidder with designation after detaching pages of Section –IV of Bidding Document) .
 - Undertaking of call deposit 2 % of the total quoted value.
 - Undertaking of non-black Listing.
 - Authorized Dealership and proof of import
 - Document re
 - Bidders Profile
- Sealed **Financial Proposal envelope** should comprise of the following documents / proof.
 - Unit Rate (inclusive of all taxes) both in figures and words on bidder’s letter head.
 - Unit Rate(inclusive of all taxes) both in figures and words on pages of pages of Section –IV of Bidding Document issued by Procurement Section of Khyber Medical University.
 - 2% call deposit.

- Sealed Envelope containing two envelope clearly marked “Technical Proposal” and the other “Financial Proposal” must reach the Tender Box before the due date and time mentioned in tender. The tender should be in sealed cover envelop clearly written thereon “**quotations for -----** --” the name of the supplier with full address and telephone/ fax number must be written on the back of the quotation. If the envelop is not sealed and marked as above, the University will not be responsible for misplacement or pre-mature opening of bid
- All prices quoted must be mentioned in Pak Rupees (PKR) and must be inclusive of all applicable taxes. The rates should be mentioned in both words and figures. Rates with cutting or overwriting will be considered as nonresponsive. No tender with conditional, ambiguous and alternate price will be considered. Only one rate should be submitted for one item. If firm desires to offer more than one rates, he should purchase separate bidding documents.
- KMU may increase or decrease quantities of items as per KPPRA rules.
- If the successful bidder fails to supply the specified items within the stipulated period, KMU reserves the right to award supply order to the 2nd (second) lowest bidder and forfeit bid security of the first lowest bidder.
- The payment will be released after inspection by KMU Inspection Committee and satisfactory report submitted by the end user. If any item is rejected by KMU Technical/Inspection Committee, the supplier will be bound to replace it within 03 days at his own risk and cost.
- A Call Deposit/Banker’s Cheque /Pay Order equal to 2 % of the quoted value must accompany the bid otherwise bid will be considered as nonresponsive. The Call Deposit /Banker’s cheque/pay order should be in favor of the Treasurer, Khyber Medical University, and Peshawar. The Call Deposit amount should be deposited on formula as Unit price x qty required= b * 2 %. Cheques and insurance guarantees will not be accepted. The call deposits shall be verified before the preparation of comparative statements and if found fake, legal action will be taken against the firm as per rules. Each page of the bidding documents must be signed and stamped before submission to Khyber Medical University.
- Bid Security of bidders who do not technically qualify shall be returned without opening of their financial bid.
- Copies of registration with income tax, sales tax and clearance of Excise & Taxation department of Khyber Pakhtunkhwa. Income Tax, General Sales Tax and stamp duty will be deducted from the supplier as per government rules.
- Security @10% of the total bill of each will be deducted from the supplier at the time of payment. The retained security amount will be release after 01 year of supplies after receipt of satisfactory report from end user.
- The approved suppliers will be responsible for the replacement of spare parts free of cost during the guarantee period, which should be mentioned in the quotation and should be at least two years. In this regard a contract / agreement will have to be signed between the supplier and KMU.
- In case of fraudulent practice by the supplier, strict action will be taken against the supplier i.e. forfeit of security and call deposit amount and penalty.
- No partial payment will be made against partial supply/ delivery.
- The successful supplier will have to make an agreement on stamp papers for the supply of the items according to the Contract.

Section – III

Specifications

S#	Specification (LOT#1)	Qty
1	<p>Family Pack CPR Manikin with AED Trainers with pads</p> <p>Technical Specifications:</p> <p>Adult sized CPR Torso Manikin (including arms Providing feedback based on just watching students perform can be challenging for instructors. QCPR measurement and feedback technology that takes the guesswork out of instruction – all from the palm of your hand. Manikin should work with an Instructor app that allows you to monitor and connects up to six Manikins at once, and a Learner app that lets students monitor their own performance on their own feedback device (iOS / Android)</p> <p>Airway Feature Realistic chest rise and fall Jaw thrust maneuver (movable jaw) Airway closes when neck is under-extended Nasal passages open for nose pinch</p> <p>CPR Correct Anatomical Landmarks</p> <ul style="list-style-type: none"> ○ Compression feedback from clicker device ○ Compression measurement feedback on any iOS / Android device ○ Ventilation measurement feedback on any iOS / Android device ○ Mouth-to-Mouth ventilations ○ Chest compression ○ Head tilt/Chin lift maneuver ○ Ventilations with visible chest rise ○ Bag Valve Mask ventilations <p>● Simulation Administration</p> <ul style="list-style-type: none"> ○ Software application connectivity for feedback through any iOS / Android device ○ Real-time feedback on compressions and ventilations ○ A performance summary with an overall score and improvement suggestion ○ Details on compression release, depth and rate, ventilation volume, and number of compressions/ventilations/cycles <p>Child QCPR Manikin Technical Specifications:</p> <p>Child sized CPR Torso Manikin Providing feedback based on just watching students perform can be challenging for instructors. QCPR measurement and feedback technology that takes the guesswork out of instruction – all from the palm of your hand. Manikin work with an Instructor app that allows you to monitor and connects up to six Manikins at once, and a Learner app that lets students monitor their own performance on their feedback device.</p> <p>Airway Feature Realistic chest rise and fall Jaw thrust maneuver (movable jaw) Airway closes when neck is under-extended Nasal passages open for nose pinch</p> <p>CPR Correct Anatomical Landmarks Compression feedback from clicker device Compression measurement feedback on any iOS / Android device Ventilation measurement feedback on any iOS / Android device Mouth-to-Mouth ventilations Chest compression Head tilt/Chin lift maneuver Ventilations with visible chest rise - Bag Valve Mask ventilations</p> <p>Simulation Administration Software application connectivity for feedback through any iOS / Android device Real-time feedback on compressions and ventilations</p> <ul style="list-style-type: none"> ○ A performance summary with an overall score and improvement suggestion ○ Details on compression release, depth and rate, ventilation volume, and number of compressions/ventilations/cycles <p>Infant QCPR Manikin Technical Specifications:</p> <p>Infant sized CPR Full Body Manikin Providing feedback based on just watching students perform can be challenging for instructors. QCPR measurement and feedback technology that takes the guesswork out of instruction – all from the palm of your hand. Manikin work with an Instructor app that allows you to monitor and connect up to six manikins at once, and a Learner app that lets students monitor their own performance on their feedback device.</p> <p>Airway Feature</p>	6

	<p>Realistic chest rise and fall Relief of Foreign-Body Airway Obstruction maneuver Jaw thrust maneuver (movable jaw) Airway closes when neck is under-extended Airway closes when neck is hyperextended</p> <p>CPR</p> <ul style="list-style-type: none"> • Correct Anatomical Landmarks • Compression feedback from clicker device • Compression measurement feedback on any iOS / Android device • Ventilation measurement feedback on any iOS / Android device • Mouth-to-Mouth ventilations • Chest compression • Head tilt/Chin lift maneuver • Ventilations with visible chest rise • Bag Valve Mask ventilations <p>Simulation Administration</p> <ul style="list-style-type: none"> • Software application connectivity for feedback through any iOS / Android device <p>Real-time feedback on compressions and ventilations</p> <ul style="list-style-type: none"> • A performance summary with an overall score and improvement suggestion • Crying Sound for choking training. • Details on compression release, depth and rate, ventilation volume, and number of compressions/ventilations/cycles <p>AED Trainers</p> <ul style="list-style-type: none"> • Simulated AED trainers with adult and infant pads (QUANTITY SIX) 	
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<p>B.</p>	<p>ACLS Full Body Simulator with Defibrillator: (LOT#2)</p> <p>Country of Manufacturer: Europe / UK / USA / Japan Technical Specifications: TECHNICAL SPECIFICATIONS:</p> <ul style="list-style-type: none"> • Full body manikin including arms and legs • Autonomous simulator is fully wireless in operation. • Real-life, indoor, and outdoor learning environments. • The simulator comes with extensive clinical features and capabilities designed specifically for emergency medical personnel and nurses. • Wireless and tether less mannequin in light skin tone. • Fully operational in the supine, lateral, prone and seated positions and should • Instructor driven operating software with operating workstation (Wireless Tablet/Laptop). • Patient monitor (all in one PC/Laptop) Mandatory <p>Airway</p> <ol style="list-style-type: none"> 1. Jaw Thrust 2. Head tilt/chin lift 3. Intubation: orotracheal, nasotracheal, ET tubes, LMA, retrograde. 4. Break away teeth (optional) 5. Gastric distention with esophageal intubation <ol style="list-style-type: none"> 1. Hard and Soft Palate 2. Oropharynx 3. Nasopharynx 4. Laryngopharynx <p>Breathing</p> <ol style="list-style-type: none"> 1. Bilateral and unilateral chest rise and fall with ventilation 2. Spontaneous breathing. 3. Pulse oximetry automatically correlates with the oxygen concentration in the lungs as per simulated scenario 4. Breath sounds and entire lungs sound- Normal and abnormal lung sounds are independently synchronized with ventilation of the right and left lungs. Lung sounds can be auscultated over anterior anatomic locations. 	<p>02</p>
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Cardiac

1. Defibrillation and cardio version using real defibrillators
2. Pacing (use of hands-free pads)
3. 12-lead dynamic ECG display
4. ECG rhythm library
5. ECG monitoring posts and interface with real ECG monitor
6. Connectivity to defibrillator and real time shock up to 360J
7. Palpate pulses- pulses can be palpated bilaterally and are synchronous with the cardiac cycle. A pulse deficit automatically occurs if the systolic arterial blood pressure falls below specified thresholds.
 - i. Bilateral Carotid
 - ii. Brachial
 - iii. Bilateral Radial

CPR

1. CPR analysis that is compliant with AHA 2020 guidelines
2. Adequate chest compressions result in simulated circulation, cardiac output, central and peripheral blood pressures, carbon dioxide return
3. Real time CPR (compression/ Ventilation feedback)

Circulation

1. Bilateral blood pressure measurement on screen.
2. Bilateral carotid, brachial, radial.

Sounds

1. Pre-recorded sounds and voices+ customized sounds (Optional)

Articulation

1. Range of motion in the elbows, knees, ankles

Speech

1. Pre-recorded and custom sounds
2. Instructor can simulate patient's voice wirelessly
3. Create and store vocal responses

Standard Accessories:

- wireless patient monitor+ Tablet Control
- Examination Light
- Crash Cart trolley
- CPR board
- Patient stretcher with lumbar & neck support.
- Biphasic Defibrillator (Branded) x2
- Laryngoscope (Branded) x2
- ET Tubes (Adult Size)
- Ophthalmoscope Branded x2
- Oro pharyngeal Airways
- Bag Valve Mask
- Preprogrammed scenarios as per AHA ACLS/ BLS manuals
- Event Logging

Note: All modules should be supplied with all workable accessories / instruments for complete functioning of the module and Unit

3.	<p>Specifications (LOT#3)</p> <p>Automated External Defibrillator Country of Manufacturer: Europe / UK / USA / Japan Technical Specifications:</p> <ul style="list-style-type: none"> • FDA Approved. • Protocol: Semi-automatic and Fully Automatic configuration. • Waveform: Rectilinear Biphasic. • Defibrillator Charge Hold Time: 30 seconds. • Energy Selection: Automatic preprogrammed selection (120J, 150J, 200J). • Patient Safety: All patient connections are electrically isolated. • Charge Time: Less than 10 seconds with new batteries • Electrodes: CPR-D-padz, Pedi-padz® II or Stat-padz® II • Self-test: Configurable automatic self-test from 1 to 7 days. Default = every 7 days. Monthly full-energy test (200J). • Automatic Self-test Checks: Battery capacity, electrode connection, electrocardiogram and charge/discharge circuits, microprocessor hardware and software, CPR circuitry and CPR-D sensor, and audio circuitry. • CPR: Metronome Rate: Variable 60 to 100 CPM • Depth: 3/4" to 3.5"; 1.9 to 8.9 cm • Defibrillation Advisory: Evaluates electrode connection and patient ECG to determine if defibrillation is required Shock able Rhythms: Ventricular fibrillation with average amplitude >100 microvolts and wide complex ventricular tachycardia with rates greater than 150 BPM for adults, 200 BPM for pediatrics. For ECG Analysis Algorithm sensitivity and specificity, refer to AED Administrator's Guide. 	6
B.	<p>Defibrillator Country of Manufacturer: Europe / UK / USA / Japan Technical Specifications: (Mandatory with ACLS Equipment LOT#2)</p> <ul style="list-style-type: none"> • FDA Approved • Waveform: Rectilinear Biphasic Patient Impedance Range: 15 to 300 ohms • Energy Selections: 1 to 10, 15, 20, 30, 50, 70, 85, 100, 120, 150, and 200joules selected using controls on front of the defibrillator or sternum paddles • Smart Step Energy Levels: Automatically escalates energy through a configured adult or pediatric protocol • Smart Step Energy Levels: Automatically escalates energy through a configured adult or pediatric protocol • Energy Display: Shown on monitor for both selected and delivered • Charge Time: Less than 7 seconds with a new, fully charged battery (first 15 charges to 200 joules); longer charge times may result with a depleted or older battery. • Synchronized Mode: Synchronizes defibrillator discharge to the patient's R wave. SYNC is indicated on the display with R wave markers above the ECG waveform on the screen and strip chart. Less than 60 ms from R-wave peak to defibrillator discharge. • Charge Control: Control from front of defibrillator or apex paddle • Paddles: External apex/sternum paddles; adult plates slide off to expose pediatric electrode surface • Patient Connection: 3-lead ECG cable, 5-lead ECG cable, paddles, multifunction electrodes • Input Protection: Fully defibrillator protected. Circuits designed to prevent distortion of ECG signal by pacer pulse • Implanted Pacemaker Spike Display: Circuits designed to detect most implanted pacemaker spikes and display a marker on the ECG trace • Bandwidth: Pads/Paddles: 0.67 to 20 Hz or 0.67 to 40 Hz (configurable) • 3/5-lead Monitoring (configurable): 0.67 to 20 Hz or 0.67 to 40 Hz (configurable) 0.525 to 40 Hz Diagnostic mode • Lead Selection: Paddles (Pads), I, II, III, aVR, aVL, aVF, V • ECG Size: 0.125, 0.25, 0.5, 1.0, 1.5, 2.0, 3.0 cm/mV and auto • Heart Rate Display: 0, 20 to 300 bpm • Heart Rate Alarm: User selectable • Feedback: Configurable audio and visual prompts for rate and depth issues when compressions fall outside of AHA/ERC recommendations. <p>Display:</p> <ul style="list-style-type: none"> • Screen Type: Color LCD, 800X480 pixels. • Screen Size: 17.8 cm/7.0 inch diagonally • Sweep Speed: 12.5 mm/sec, 25 mm/sec, 50 mm/sec (user selectable) • Channels: 4 <ul style="list-style-type: none"> • Information: Heart Rate, Leads/Pads, Alarm On/Off, Selected Energy, Delivered Energy, User Prompts and 	2

Warnings, SpO2*, NIBP*, EtCO2*, PacerFunctions, Code Markers,
CPR Dashboard

- **Battery:**

- Type: 10.8 V (nominal) rechargeable lithium ion
- Capacity: 5.8 amp hours
- Recharge Time: 100% in 5 hours
- Operating Time: At least 4 hours of continuous ECG monitoring and 20 x 200Jshocks;100 discharges at maximum shock energy (200J); 3.5 hours of ECG monitoring and pacing at 180 ppm and 140 mA.

- **AED**

- Shock Advisory Function: Evaluates ECG rhythm to determine if shock delivery is required
- Shock able Rhythms: Ventricular fibrillation with amplitudes >100 μ V, and wide-complex ventricular tachycardia with rates >150 bpm for adults or >200bpm for pediatric Applications. Refer to Operator's Manual for details on sensitivity and specificity performance
- Protocol Configurations: Configurable for either CPR or shock-first-driven protocols. Energy sequences can be configured for single or multiple shocks with fixed or escalating energy levels. The CPR interval length is configurable in 1-minute increments up to 4 minutes.

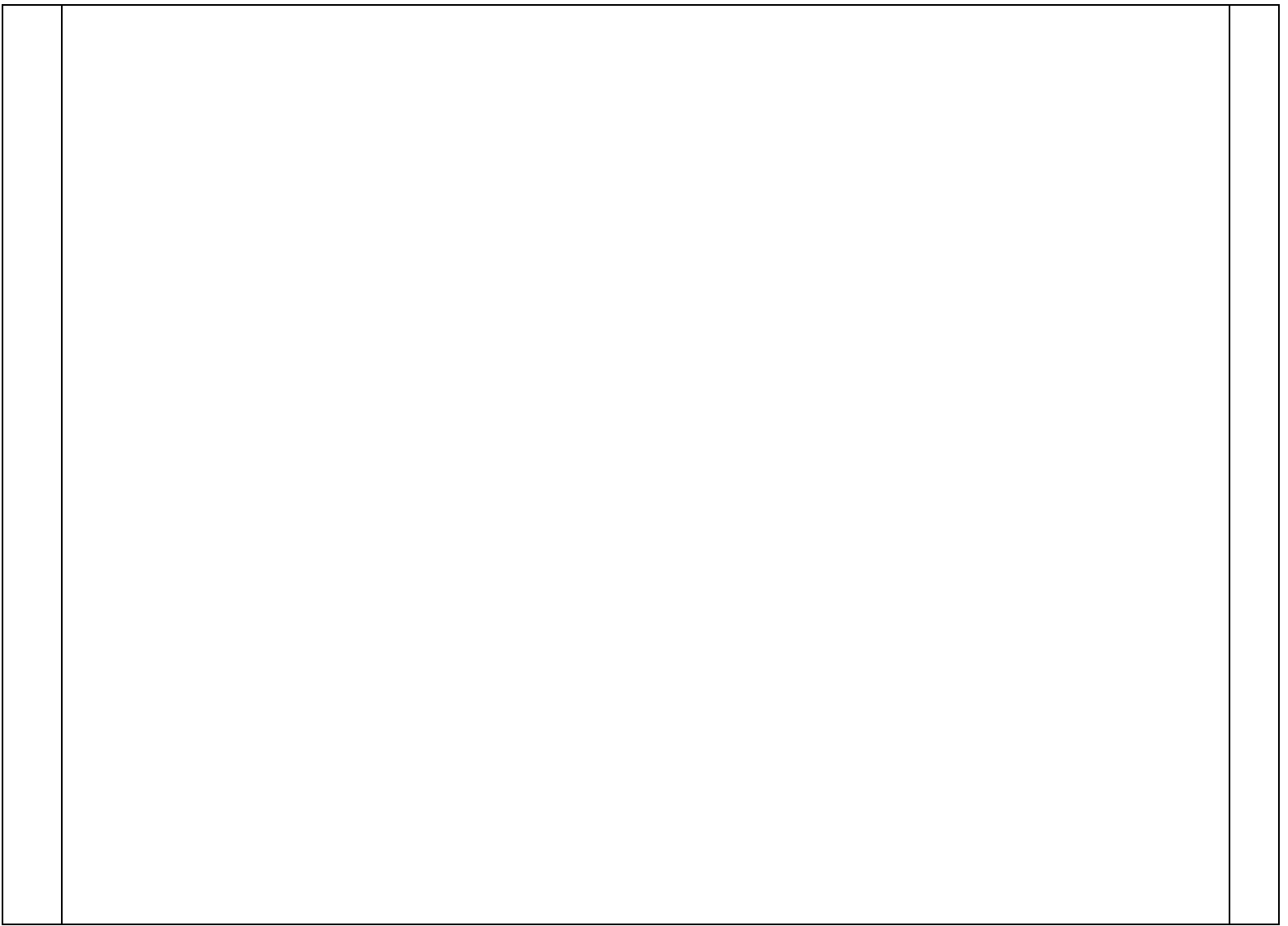
External Pacing:

- Type: External transcutaneous pacing, VVI demand or asynchronous (fixed rate)
- Pulse: Rectilinear, constant current
- Pulse Width: 40msec \pm 2msec
- Pacer Rate: 30 - 180 bpm \pm 2 bpm
- Output Current: 0 - 140mA \pm 5% or 5mA (whichever is greater)
- Output Protection: Fully defibrillator protected and isolated

Pulse Oximetry (SpO2):

- Saturation Range: 0% - 100%, with a resolution of 1%
- Pulse Rate Range: 25 - 240 bpm, with a resolution of 1 bpm
- Saturation Accuracy: 70 - 100 \pm 2%, Adult/ Pediatric

Pulse Rate Accuracy: \pm 3% of the reading or 2 bpm, whichever is greater, Adult/Pediatric



Note: Also attach the technical bids/Specifications in MS Word format in Flash Drive.

Section – IV BID SUBMISSION FORM (Should also be submitted on company letter head too)

To

The Chairman
Purchase Committee
Khyber Medical University
Peshawar

Enclosed please find the offer to execute the contract of supply of Manikins & Equipment's in accordance with the conditions of agreement accompanying this bid for the price of. We accept to supply the items within time mentioned in the supply order on the rate approved by the purchase committee. . This bid and your written acceptance will constitute a binding contract between us. We understand that you are not bound to accept the lowest or any bid you receive. We hereby confirm that this bid complies with the validity of the bid required by the proposal documents. we are bound to make supply of items to Khyber Medical University during the stipulated time of supply order at the rate approved.

1. Name of Supplier: _____
2. Address of Supplier: _____
3. Phone Number of Supplier: _____
4. Fax No. _____
5. Name of the authorized person: _____
6. Signature: _____
7. Designation of authorized person: _____
8. Stamp of the Supplying Agency: _____
9. Dated: _____

BID Form

S#	Specification (LOT#1)	Price Inclusive all taxes
1	<p>Family Pack CPR Manikin with AED Trainers with pads Technical Specifications:</p> <p>Adult sized CPR Torso Manikin (including arms Providing feedback based on just watching students perform can be challenging for instructors. QCPR measurement and feedback technology that takes the guesswork out of instruction – all from the palm of your hand. Manikin should work with an Instructor app that allows you to monitor and connects up to six Manikins at once, and a Learner app that lets students monitor their own performance on their own feedback device (iOS / Android)</p> <p>Airway Feature Realistic chest rise and fall Jaw thrust maneuver (movable jaw) Airway closes when neck is under-extended Nasal passages open for nose pinch</p> <p>CPR Correct Anatomical Landmarks</p> <ul style="list-style-type: none"> ○ Compression feedback from clicker device ○ Compression measurement feedback on any iOS / Android device ○ Ventilation measurement feedback on any iOS / Android device ○ Mouth-to-Mouth ventilations ○ Chest compression ○ Head tilt/Chin lift maneuver ○ Ventilations with visible chest rise ○ Bag Valve Mask ventilations <p>• Simulation Administration</p> <ul style="list-style-type: none"> ○ Software application connectivity for feedback through any iOS / Android device ○ Real-time feedback on compressions and ventilations ○ A performance summary with an overall score and improvement suggestion ○ Details on compression release, depth and rate, ventilation volume, and number of compressions/ventilations/cycles <p>Child QCPR Manikin Technical Specifications: Child sized CPR Torso Manikin Providing feedback based on just watching students perform can be challenging for instructors. QCPR measurement and feedback technology that takes the guesswork out of instruction– all from the palm of your hand. Manikin work with an Instructor app that allows you to monitor and connects up to six Manikins at once, and a Learner app that lets students monitor their own performance on their feedback device.</p> <p>Airway Feature Realistic chest rise and fall Jaw thrust maneuver (movable jaw) Airway closes when neck is under-extended Nasal passages open for nose pinch</p> <p>CPR Correct Anatomical Landmarks Compression feedback from clicker device Compression measurement feedback on any iOS / Android device Ventilation measurement feedback on any iOS / Android device Mouth-to-Mouth ventilations Chest compression Head tilt/Chin lift maneuver Ventilations with visible chest rise - Bag Valve Mask ventilations</p> <p>Simulation Administration Software application connectivity for feedback through any iOS / Android device Real-time feedback on compressions and ventilations</p> <ul style="list-style-type: none"> ○ A performance summary with an overall score and improvement suggestion ○ Details on compression release, depth and rate, ventilation volume, and number of compressions/ventilations/cycles <p>Infant QCPR Manikin Technical Specifications: Infant sized CPR Full Body Manikin Providing feedback based on just watching students perform can be challenging for instructors. QCPR measurement and feedback technology that takes the guesswork out of</p>	

instruction– all from the palm of your hand. Manikin work with an Instructor app that allows you to monitor and connect up to six manikins at once, and a Learner app that lets students monitor their own performance on their feedback device.

Airway Feature

Realistic chest rise and fall

Relief of Foreign-Body Airway Obstruction maneuver
Jaw thrust maneuver
(movable jaw)

Airway closes when neck is under-extended
Airway closes when neck is hyperextended

CPR

- Correct Anatomical Landmarks
- Compression feedback from clicker device
- Compression measurement feedback on any iOS / Android device
- Ventilation measurement feedback on any iOS / Android device
- Mouth-to-Mouth ventilations
- Chest compression
- Head tilt/Chin lift maneuver
- Ventilations with visible chest rise
- Bag Valve Mask ventilations

Simulation Administration

- Software application connectivity for feedback through any iOS / Android device

Real-time feedback on compressions and ventilations

- A performance summary with an overall score and improvement suggestion
- Crying Sound for choking training.
- Details on compression release, depth and rate, ventilation volume, and number of compressions/ventilations/cycles

AED Trainers

- Simulated AED trainers with adult and infant pads (**QUANTITY SIX**)

B.	<p>ACLS Full Body Simulator with Defibrillator: (LOT#2)</p> <p>Country of Manufacturer: Europe / UK / USA / Japan Technical Specifications:</p> <p>TECHNICAL SPECIFICATIONS:</p> <ul style="list-style-type: none"> • Full body manikin including arms and legs • Autonomous simulator is fully wireless in operation. • Real-life, indoor, and outdoor learning environments. • The simulator comes with extensive clinical features and capabilities designed specifically for emergency medical personnel and nurses. • Wireless and tether less mannequin in light skin tone. • Fully operational in the supine, lateral, prone and seated positions and should • Instructor driven operating software with operating workstation (Wireless Tablet/Laptop). • Patient monitor (all in one PC/Laptop) Mandatory <p>Airway</p> <ol style="list-style-type: none"> 6. Jaw Thrust 7. Head tilt/chin lift 8. Intubation: orotracheal, nasotracheal, ET tubes, LMA, retrograde. 9. Break away teeth (optional) 10. Gastric distention with esophageal intubation 5. Hard and Soft Palate 6. Oropharynx 7. Nasopharynx 8. Laryngopharynx <p>Breathing</p> <ol style="list-style-type: none"> 5. Bilateral and unilateral chest rise and fall with ventilation 6. Spontaneous breathing. 7. Pulse oximetry automatically correlates with the oxygen concentration in the lungs as per simulated scenario 8. Breath sounds and entire lungs sound- Normal and abnormal lung sounds are independently synchronized with ventilation of the right and left lungs. Lung sounds can be auscultated over anterior anatomic locations. 	<p>Price Inclusive all taxes</p>
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Cardiac

8. Defibrillation and cardio version using real defibrillators
9. Pacing (use of hands-free pads)
10. 12-lead dynamic ECG display
11. ECG rhythm library
12. ECG monitoring posts and interface with real ECG monitor
13. Connectivity to defibrillator and real time shock up to 360J
14. Palpate pulses- pulses can be palpated bilaterally and are synchronous with the cardiac cycle. A pulse deficit automatically occurs if the systolic arterial blood pressure falls below specified thresholds.
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 - ii. Brachial
 - iii. Bilateral Radial

CPR

4. CPR analysis that is compliant with AHA 2020 guidelines
5. Adequate chest compressions result in simulated circulation, cardiac output, central and peripheral blood pressures, carbon dioxide return
6. Real time CPR (compression/ Ventilation feedback)

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3. Bilateral blood pressure measurement on screen.
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2. Pre-recorded sounds and voices+ customized sounds (Optional)

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1. Range of motion in the elbows, knees, ankles

Speech

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- wireless patient monitor+ Tablet Control
- Examination Light
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- ET Tubes (Adult Size)
- Ophthalmoscope Branded x2
- Oro pharyngeal Airways
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- Preprogrammed scenarios as per AHA ACLS/ BLS manuals
- Event Logging

Note: All modules should be supplied with all workable accessories / instruments for complete functioning of the module and Unit

S#	Specifications (LOT#3)	Price Inclusive all taxes
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<p>3.</p>	<p>Automated External Defibrillator Country of Manufacturer: Europe / UK / USA / Japan Technical Specifications:</p> <ul style="list-style-type: none"> • FDA Approved. • Protocol: Semi-automatic and Fully Automatic configuration. • Waveform: Rectilinear Biphasic. • Defibrillator Charge Hold Time: 30 seconds. • Energy Selection: Automatic preprogrammed selection (120J, 150J, 200J). • Patient Safety: All patient connections are electrically isolated. • Charge Time: Less than 10 seconds with new batteries • Electrodes: CPR-D-padz, Pedi-padz® II or Stat-padz® II • Self-test: Configurable automatic self-test from 1 to 7 days. Default = every 7 days. Monthly full-energy test (200J). • Automatic Self-test Checks: Battery capacity, electrode connection, electrocardiogram and charge/discharge circuits, microprocessor hardware and software, CPR circuitry and CPR-D sensor, and audio circuitry. • CPR: Metronome Rate: Variable 60 to 100 CPM • Depth: 3/4" to 3.5"; 1.9 to 8.9 cm • Defibrillation Advisory: Evaluates electrode connection and patient ECG to determine if defibrillation is required Shock able Rhythms: Ventricular fibrillation with average amplitude >100 microvolts and wide complex ventricular tachycardia with rates greater than 150 BPM for adults, 200 BPM for pediatrics. For ECG Analysis Algorithm sensitivity and specificity, refer to AED Administrator's Guide. 	
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<p>B.</p>	<p>Defibrillator Country of Manufacturer: Europe / UK / USA / Japan Technical Specifications: (Mandatory with ACLS Equipment LOT#2)</p> <ul style="list-style-type: none"> • FDA Approved • Waveform: Rectilinear Biphasic Patient Impedance Range: 15 to 300 ohms • Energy Selections: 1 to 10, 15, 20, 30, 50, 70, 85, 100, 120, 150, and 200joules selected using controls on front of the defibrillator or sternum paddles • Smart Step Energy Levels: Automatically escalates energy through a configuredadult or pediatric protocol • Smart Step Energy Levels: Automatically escalates energy through a configuredadult or pediatric protocol • Energy Display: Shown on monitor for both selected and delivered • Charge Time: Less than 7 seconds with a new, fully charged battery (first 15 Charges to 200 joules); longer charge times may result with a depleted or older battery. • Synchronized Mode: Synchronizes defibrillator discharge to the patient's R wave.SYNC is indicated on the display with R wave markers above the ECG waveform on the screen and strip chart. Less than 60 ms from R-wave peak to defibrillator discharge. • Charge Control: Control from front of defibrillator or apex paddle • Paddles: External apex/sternum paddles; adult plates slide off to exposepediatric electrode surface • Patient Connection: 3-lead ECG cable, 5-lead ECG cable, paddles, multifunction electrodes • Input Protection: Fully defibrillator protected. Circuits designed to prevent distortion of ECG signal by pacemaker pulse • Implanted Pacemaker Spike Display: Circuits designed to detect most implanted pacemaker spikes and display a marker on the ECG trace • Bandwidth: Pads/Paddles: 0.67 to 20 Hz or 0.67 to 40 Hz (configurable) • 3/5-lead Monitoring (configurable): 0.67 to 20 Hz or 0.67 to 40 Hz (configurable) 0.525to 40 Hz Diagnostic mode • Lead Selection: Paddles (Pads), I, II, III, aVR, aVL, aVF, V • ECG Size: 0.125, 0.25, 0.5, 1.0, 1.5, 2.0, 3.0 cm/mV and auto • Heart Rate Display: 0, 20 to 300 bpm • Heart Rate Alarm: User selectable • Feedback: Configurable audio and visual prompts for rate and depthissues when compressions fall outside of AHA/ERC recommendations 	
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	<p>Display:</p> <ul style="list-style-type: none"> • Screen Type: Color LCD, 800X480 pixels. • Screen Size: 17.8 cm/7.0 inch diagonally • Sweep Speed: 12.5 mm/sec, 25 mm/sec, 50 mm/sec (user selectable) • Channels: 4 <ul style="list-style-type: none"> • Information: Heart Rate, Leads/Pads, Alarm On/Off, Selected Energy, Delivered Energy, User Prompts and Warnings, SpO2*, NIBP*, EtCO2*, Pacer Functions, Code Markers, CPR Dashboard • Battery: <ul style="list-style-type: none"> • Type: 10.8 V (nominal) rechargeable lithium ion • Capacity: 5.8 amp hours • Recharge Time: 100% in 5 hours • Operating Time: At least 4 hours of continuous ECG monitoring and 20 x 200J shocks; 100 discharges at maximum shock energy (200J); 3.5 hours of ECG monitoring and pacing at 180 ppm and 140 mA. • AED <ul style="list-style-type: none"> • Shock Advisory Function: Evaluates ECG rhythm to determine if shock delivery is required • Shock able Rhythms: Ventricular fibrillation with amplitudes >100 µV, and wide-complex ventricular tachycardia with rates >150 bpm for adults or >200bpm for pediatric Applications. Refer to Operator's Manual for details on sensitivity and specificity performance • Protocol Configurations: Configurable for either CPR or shock-first-driven protocols. Energy sequences can be configured for single or multiple shocks with fixed Or escalating energy levels. The CPR interval length is configurable in 1-minute increments up to 4 minutes. <p>External Pacing:</p> <ul style="list-style-type: none"> • Type: External transcutaneous pacing, VVI demand or asynchronous (fixed rate) • Pulse: Rectilinear, constant current • Pulse Width: 40msec ± 2msec • Pacer Rate: 30 - 180 bpm ± 2 bpm • Output Current: 0 - 140mA ± 5% or 5mA (whichever is greater) • Output Protection: Fully defibrillator protected and isolated <p>Pulse Oximetry (SpO2):</p> <ul style="list-style-type: none"> • Saturation Range: 0% - 100%, with a resolution of 1% • Pulse Rate Range: 25 - 240 bpm, with a resolution of 1 bpm • Saturation Accuracy: 70 - 100 ± 2%, Adult/ Pediatric • Pulse Rate Accuracy: ± 3% of the reading or 2 bpm, whichever is greater, Adult/Pediatric 	
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Note: Also attach the technical bids/Specifications in MS Word format in Flash Drive.

Section – V

FORM OF CONTRACT AGREEMENT

This agreement made on this day _____ of _____ 2024 between the Khyber Medical University, Peshawar (herein after called the Purchaser) of the one part and _____ (herein after called the Supplier) of the other part. Whereas the Purchaser invited bids for certain supply of Manikins & Equipment's and has accepted a Bid by the Supplier for the supply of those equipment's/Medical supplies/Machinery /Furniture/ Goods. NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- The following documents shall be deemed to form and be read as construed as part of this agreement viz:
 - The purchasers Notification to the Supplier of Award of Contract (Supply Order)
 - The form of Bid and the price schedule submitted by the Supplier;
 - APPENDICES to BID.
- The successful supplier shall be bound to supply the required items at approved rates within 30 days for Local Items and 90 days for Imported Items of the receipt of supply order. In case of delay in supply within stipulated time the penalty @ 1% per 15 days for first 30 days and thereafter @ 2% per 15 days in the subsequent period.
- The Successful suppliers will be bound to make supply during the period 2022-23 at the rate approved as and when the supply order is issued by Procurement Office.
- The item if found sub-standard or if not according to specification shall be replaced free of cost by the Supplier.
- The supplier shall be bound to deliver and install the approved equipment's at the Site of installation at their own cost. However, the pre-requisite for the installation will be provided by the University.
- Strict action will be taken against the supplier in case of any fraudulent practice by the supplier.
- The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate the equipment / machinery deliver upon full fill recent of all the obligations stipulated in the Contract. The payment to the supplier will be made from the by Purchaser after installation and inspection by technical committee and satisfactory report by end-users.
- The Supplier is responsible for all taxes according to the laws of the Islamic Republic of Pakistan and Khyber Pakhtunkhwa Province.

- The Supplier shall be responsible for deduction of 1% stamp duty while executing the contract as per Provincial Assembly Notification No. PA/NWFP/legis-1/2001/13723 dated 7/07/2007 regarding finance bill article No.22 (A) (B).
- **Warranty:**
 - The Supplier warrants that all the goods are new, unused and of the most recent or current models and that they incorporate all recent improvements in design and materials.
 - The Supplier further warrants that the goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials and workmanship, under normal use in the condition prevailing in Khyber Pakhtunkhwa.
 - The warranty shall remain valid for twelve (12) months after the goods have been delivered to and accepted by the Purchaser.
 - The KMU shall give Notice to the supplier stating the nature of any such defects together with all available evidence thereof; promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
 - Upon receipt of such Notice, the supplier shall, within fifteen (15) days expediently replace the defective goods or parts thereof, at no cost to the Purchaser.
 - If having been notified the Supplier fails to remedy the defects within the stipulated period, the purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.
 - The KMU Technical / Inspection Committee of University shall have the right to inspect / test the goods to confirm their conformity to the contract specification. The inspection and test may be conducted in the premises of KMU. The supplier shall provide all reasonable assistance, including access to drawings and production data, at no charge to the Purchaser.
 - The purchaser may reject any equipment / machinery that fails to pass any test and / or inspection on do not conform to the specifications. The supplier shall replace the rejected equipment at no cost to the Purchaser and shall repeat the test or inspection.
- **Termination:** Termination for default:

The Purchaser, without prejudice to any other remedy for breach of contract by notice of default sent to the supplier, may terminate the contract in whole or in part.

 - If the supplier fails to deliver any or all of the goods within the period specified in the contract.

- If the supplier fails to perform any other obligation under the contract.

In the event the purchaser terminates the contract in whole or in part, the Purchaser may procure, upon such terms and in such manner as it deems appropriate Goods or related services similar to those undelivered or not performed, and the Supplier shall be liable to the purchaser to any additional costs for such similar goods.

- If the supplier, in the judgment of the purchaser has engaged in corrupt and fraudulent practices in competing for or in executing the contract.

Assignment: The supplier shall not assign, in whole or in part its obligation under the contract.

Party – 1

Party – 2 (The Supplier)

(Registrar)

Name of Supplier: _____

Address of Supplier: _____

Phone Number of Supplier: _____

Fax No. _____

Name of the authorized person: _____

Signature: _____

Designation of authorized person: _____

Stamp of the Firm: _____

Dated: _____

Witness No. 1

Name: _____

Signature: _____

CNIC No: _____

Witness No. 2

Name: _____

Signature: _____

CNIC No: _____

Section – VI

DELIVERY TIME

The successful supplier / firm will be bound to supply the required items within 30 days the receipt of supply order for local items and 90 days for imported items. In case of delay in supply within stipulated time of period @1% per 15 days for first 30 days and thereafter @2% per 15 days in the subsequent period.

Section – VII QUALIFICATION CRITERIA

As per section-II(term & conditions)

Section – VIII

BIDS EVALUATION CRITERIA

S#	Conformance Specifications		
	Mandatory (1)	Life time Software upgrade as Per AHA Guidelines.	
1	(2)	Compliance to Purchaser's Specifications	
1.1		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, one mark for every minor deviation).	30
2	Special Feature	Any Value added item	5
3		Product Certifications Provided F.O.C (As per decision of TAEC)	
3.1	2.5 Marks for Each, max 05 marks	(CE, ISO, or any relevant certificate for manikins, one of the certificates is mandatory).	5
3.2		Product's Local Performance	
3.3	Max 30Marks	Physical demonstration of quoted product.	30
4		Product Local performance	
4.1	2.5 Marks for Each, max 05 marks	At least 02 satisfactory past performance certificate from public and private sector medical institutes for skills Lab Products along with supply orders, contract agreement.	05
4.2	Warranty Period		
5		03 Years with parts and 02 years without parts, total of 05 years	Mandatory
5.1	Patient Monitor (All in One PC with ACLS Equipment)		Mandatory
6	Post warranty	The firm must quote post warranty in percentage. The lowest one will get full marks i.e 03, the rest of the firms will get 50% marks i.e 02.	5
6.1			
6.2	Firm Evaluation		Total Marks: 20
1		Personnel/Human Resource	
1.1		Associate Engineer with Diploma of Associate Engineer. (At	03

1		least one Associate Engineer)	
1 · 2	03 Marks for Each, Max 06 Marks	Graduate Engineer duly registered with PEC with minimum two years' relevant experience	03
1 · 3		MBBS DOCTOR	04
2		Workshop/office Facility for Testing/Calibration of Equipment.	
2. 1	Workshops/Office	For KPK workshop 08 Marks and Other provinces 02 Marks.	10
3		Mandatory Clauses for Firms Qualifications	
3. 1	Authorization Letter	Only Authorized Bidders of quoted brands will be Allowed to quote.	No Marks as Being Mandatory
3. 2		Life time software upgrade as Per AHA guidelines.	No Marks as Being Mandatory
3. 3	Income Tax and Sales Tax Certificate	Active Tax Payer in FBR	No Marks as Being Mandatory
3. 4	Registration with KPRA	Firm should be registered with Excise and taxation Department, Peshawar	No Marks as Being Mandatory

Total Marks in Technical Criteria: 100

Percentage in Technical Criteria: 75%

Qualifying Marks: 75 in Technical

This scoring criterion will be 75 % for technical and 25% for financial Bids.

Financial Criteria (25 Marks):

Total Marks in Technical Criteria: 100

Percentage in Technical Criteria: 75%

Qualifying Marks: 75

This scoring criterion will be 75 % for technical and 25% for financial Bids.

Financial Criteria (25 Marks):

S#	Parameters	Sub-Parameters	Total Marks: 25
		Price	25

		<p>Lowest Price will get full marks. The formula to calculate the marks for the price submitted is: [Lowest Price (Fm)/Price of Bid under consideration(F)] x100 x 0.20</p>	25
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Total Marks (Technical Criteria + Financial Criteria): 100

The bidders achieving a minimum of **75** marks out of **100** marks in the Technical Evaluation will be declared technically qualified. Financial bids of only technically qualified bidders will be opened publicly at the time to be announced by the Procuring Agency. The Financial Bids of technically disqualified bidders will be returned un-opened to the respective bidders.

The price bid will remain valid up to 30-06-2024.