**1** **Full Automated Hematology analyzer with UPS**

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| I | **Manufacturer Name:** | |
| II | **Model No.:** | |
| III | **Country of Origin:** | |
| **1** | **Description of Function** | |
| | full Automated haematology analyser or complete blood cell counter is used to count various types of blood cells in the blood. | |
| **2** | **Operational Requirements** | |
| | Fully automated 3 parts differential hematology analyser. | |
| **3** | **System Configuration** | |
| | Fully Automated Haematology Analyser, complete unit with all standard reagents, consumables and accessories. | |
| **4** | **Technical Specifications** | |
| | Determination of 18 to 19 parameters, with 3-part differential, for routine haematology. | |
| | Shall have fully automatic, open system. | |
| | Sample volume: < 30ul. | |
| | Throughput: approx. 50 samples per hour, 24h power on, with dormancy and wake function. | |
| | Determination of: Red blood cell(RBC), White blood cell(WBC), Haemoglobin(HGB), Haematocrit(HCT), Mean cell volume(MCV), Mean cell haemoglobin(MCH), Red cell distribution(RDW-SD and RDW-CV), Platelets(PLT),Platelet distribution(PDW-SD and PDW-CV), Mean platelet volume(MPV), differential leucocytes (LYM, LYM%, MID, MID%, GRA, GRA%). | |
| | Method: Photometry and impedance technology, cyanide-free colorimetry for haemoglobin counting. If other methods please specify | |
| | Calibration: independent automated calibration and manual calibration for minimum two test modes. | |
| | Typical counting time: approximately 60 seconds for differential. | |
| | Shall have with self-test capability. | |
| | Display: LCD screen. | |
| | Indication of self-test failures and assistance messages, sample ID, date and time are reported with test results. | |
| | Supplied complete with dedicated data analysis and data management software. | |
| | Results are reported on external laser printer. | |
| | Also must have build in printer | |
| | Shall have built-in RS232, USB2.0 or equivalent, for allowing data transfer and network capability via LIS. | |
| | On board memory for about 100-150 tests records. | |
| | Shall quote rates for reagents & consumables, calibrators & controls, printer paper, separately and it must be valid for at least 3 years. | |
| **5** | **Accessories, spares and consumables** | |
| | Reagents & consumables, calibrators & controls, printer paper to be supplied for 100 samples. | |
| | All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above). | |
| * | **Consumables details** | |
| 1 | Specify all Reagent types and solutions that machine used with their volumes and packing | |
| 2 | Specify the Total shelf life for each Reagent, Solution and materials | |
| 3 | Specify the No. of tests per each set | |
| 4 | Specify the Cost per test | |
| 5 | Specify QC materials and intervals | |
| **6** | **Operating Environment** | |
| | The product offered shall be designed to be stored and to operate normally under the conditions of Sudan. The conditions include Power Supply, Climate, Temperature, Humidity, etc. | |
| | Power supply: 220-240VAC, 50Hz fitted with appropriate plug type D (3 pins). The power cable must be minimum 3 meters long. | |
| | Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back-up for the entire system including computer and printer shall be supplied with the system. | |

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| | **Standards and Safety Requirements** | |
| | Must submit ISO13485:2003/AC:2007 for Medical Devices AND | |
| | CE (93/42 EEC Directives) or USFDA approved product certificate. | |
| | Shall meet IEC 61010-2-081 safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic | |
| 7 | **User Training** | |
| | On site operational training till the familiarity of the system and satisfaction of end user shall be provided. | |
| **8** | **Warranty** | |
| | Comprehensive warranty for 2 years after acceptance. | |
| **9** | **Maintenance Service During Warranty Period** | |
| | During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required. | |
| **10** | **Installation and Commissioning** | |
| | The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail. | |
| **11** | **Documentation** | |
| | User (Operating) manual in English. | |
| | Service (Technical / Maintenance) manual in English. | |
| | List of important spare parts and accessories with their part numbers and costing. | |
| | Certificate of calibration and inspection from factory. | |

**2** **Fully Automated Chemistery analyzer with UPS**

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| I | **Manufacturer Name:** | |
| II | **Model No.:** | |
| III | **Country of Origin:** | |
| 1 | The Fully-automated Biochemistry Analyzer measures biochemical indexes by analyzing blood and other body fluid, then combines with other clinical information, to help diagnose disease, evaluate organs function, identify disease gene and determine the norm for future therapy. | |
| | Automatic Analyzer | |
| | random continuous access | |
| | Not less than 180 test / hr | |
| | Automatic calibration | |
| | Sample Tray: Specify capacity of patient sample tray: | |
| | Reagent Storage Area: Specify capacity of reagent tray: | |
| | Specify Refrigerated storage for one- or two-reagent chemistries plus open system capability – | |
| | Specify Calibration stability in days: | |
| | documentation on CD | |
| | Host interface : bidirectional | |
| | Auto-dilution : Automatic dilution from the original sample | |
| | Auto-repeat : Automatic repeat testing from the original sample | |
| | Automatic Clot Detection | |
| | Specify the Sample Volume in µL: | |
| | Running cost details important and all start up kits neede for operation and calibration give in details | |
| 2 | **Operating Environment** | |
| | The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and | |
| | The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and | |
| * | **Consumables details:** you can give the reauired details in a separate sheet | |
| 1 | Specify all Reagent types and solutions that machine used with their volumes and packing | |
| 2 | Specify the Total shelf life for each Reagent, Solution and materials (Reagent, Controls, Calibraters, …etc) | |
| 3 | Specify the Number of tests per each set | |
| 4 | Specify the Cost per test for each test | |
| 5 | Specify QC materials and intervals | |

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| 6 | Attach A Price List in Euro for all Reagents, Controls, Calibrators and consumables that machine may need to operate in its full options | |
| 3 | **Power supply**: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. | |
| | Suitable UPS with maintenance free batteries for minimum 30 min. back-up Must be supplied with the system. | |
| 4 | **Standards and Safety Requirements** | |
| | Must submit ISO13485:2003/AC:2007 for Medical Devices AND Should be FDA/CE/BIS approved product. | |
| | Shall meet internationally recognised for Electromagnetic Compatibility(EMC) for electromedical equipment: 61326-1. | |
| | Certified to be compliant with IEC 61010-1, IEC 61010-2-281, 61010-2- 101 for safety. | |
| 5 | **User Training** | |
| | On site operational training till the familiarity of the system and satisfaction of end user shall be provided. | |
| 6 | **Warranty** | |
| | Comprehensive warranty for 2 years from acceptance. | |
| 7 | **Maintenance Service During Warranty Period** | |
| | During the warranty period supplier must ensure planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required. | |
| 8 | **Installation and Commissioning** | |
| | The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the user in advance, in detail. Also attach these requirement for installation here or in a separate sheet. | |
| 9 | **Documentation** | |
| | User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy) | |
| | Service (Technical / Maintenance) manual in English Should provide 2 sets(hardcopy and soft-copy) | |
| | List of important spare parts and accessories with their part number and costing. | |
| | Certificate of calibration and inspection from factory. | |

**3** **Electrolyte analyzer with UPS**

| No. | Item Specifications | Fill your Specifications |
|---|---|---|
| I | **Manufacturer Name:** | |
| II | **Model No.:** | |
| III | **Country of Origin:** | |
| 1 | For analysis of electrolytes in laboratories or hospital point of care | |
| 2 | Units to measures electrolytes from whole blood, serum, plasma, | |
| 3 | Urine dialysate or aqueous standards. | |
| 4 | The machine can be configured to measure Na,K,and ionized | |
| 5 | Calcium Interchangeable electrodes | |
| 6 | Programmable correlation factors | |
| 7 | microprocessor controlled. | |
| 8 | Electrodes for **:** Sodium. Potassium, Chloride., Ionized Calcium, | |
| 9 | Lithium Reference System. | |
| 10 | Sample Size not more than 100 µL | |
| 11 | Measurement range for **blood approx:** | |
| | Na+: 20 - 200 | |
| | K+: 0.2 - 40 | |
| | Cl-: 25 - 200 | |
| | Li+: 0.2 - 5 | |
| | Ca++: 0.1 - 6 | |
| | PH: 6- 8 units | |
| 12 | Measurement range for **urine approx:** | |
| | Na+: 25 - 1000 | |
| | K+: 1 - 500 | |
| | Cl-: 25 - 500 | |
| | Sample Application syringe,sample cup,collection tube,capillary | |
| | Analysis Time (blood) not more than 1 min | |

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| | Analysis Time (urine) not more than 2 min | |
| | Sample Rate minimum 60 sample/hour | |
| | Must has Built in printer and specify it's type | |
| * | **Consumables details** | |
| 1 | Specify all Reagent types and solutions that machine used with their volumes and packing | |
| 2 | Specify the Total shelf life for each Reagent, Solution and materials | |
| 3 | Specify the No. of tests per each set | |
| 4 | Specify the Cost per test | |
| 5 | Specify QC materials and intervals | |
| 6 | Specify auto calibration frequency and volumes of reagent consumed if applicable | |
| 18 | **Operating Environment** | |
| | The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90% | |
| | The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90% | |
| 19 | **Power supply**: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. | |
| | Suitable UPS with maintenance free batteries for minimum 30 min. back-up shall be supplied with the system. | |
| 20 | **Standards and Safety Requirements** | |
| | Must submit ISO13485:2003/AC:2007 for Medical Devices AND | |
| | Should be FDA/CE approved product. | |
| | Shall meet internationally recognised for Electromagnetic Compatibility(EMC) for electromedical equipment: 61326-1. | |
| | Certified to be compliant with IEC 61010-1, IEC 61010-2-281, 61010-2- 101 for safety. | |
| 21 | **User Training** | |
| | On site operational training till the familiarity of the system and satisfaction of end user shall be provided. | |
| 22 | **Warranty** | |
| | Comprehensive warranty for 2 years from acceptance. | |
| 23 | **Maintenance Service During Warranty Period** | |
| | During the warranty period supplier must ensure planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required. | |
| 24 | **Installation and Commissioning** | |
| | The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the user in advance, in detail. | |
| 25 | **Documentation required** | |
| | User (Operating) manual in English Should provide 2 sets(hardcopy and soft-copy) | |
| | Service (Technical / Maintenance) manual in English Should provide 2 sets(hardcopy and soft-copy) | |
| | Must submit the List of all Reagents / Consumables / Controls /Calibrators and spare parts and accessories and with their part number and costing **(in foreign currency**) | |
| | Certificate of calibration and inspection from factory. | |
| | Certificate of Origin | |

**4** **ELISA Washer & Reader with External Printer with UPS**

**I** **ELISA Reader**

| No. | Item Specifications | Fill Your Specifications |
|---|---|---|
| I | **Manufacturer Name:** | |
| II | **Model No.:** | |
| III | **Country of Origin:** | |
| **1** | **Description of Function** | |
| 1.1 | ELISA Reader is required to Read the Color Density known as OD (Optical Density) in ELISA (Enzyme Linked Immuno Sorbent Assay) Plates | |
| **2** | **Operational Requirements** | |
| 2.1 | ELISA Reader complete with Printer is required. | |
| **3** | **Technical Specifications** | |
| 3.1 | Should have 8-12 measuring channel & reference channel | |
| 3.2 | Should have wave length range of 340- 750 nm 6 filters 340, 405. 450, 492, 540, 630nm with provision for fitting any additional filters | |
| 3.3 | Should have an absorption range of 0-4.000A | |

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| 3.4 | Should have a resolution of 0.001A | |
| 3.5 | Should read within 6-8 seconds | |
| 3.6 | The control panel should have soft color touch screen display, capable of showing graph etc. | |
| 3.7 | Should have external & internal programmable time & speed shaking | |
| 3.8 | Should be able to read all types of plates | |
| 3.9 | Should have a single halogen lamp with save features as light source | |
| 3.10 | Should have user defined programs 30 or more. | |
| 3.11 | RS232/USB output for Printer, PC connectivity and Data acquisition should be there | |
| 3.12 | Should have data memory of 300 plates. | |
| 3.13 | Should have external printer, capable of printing complete results & graphs etc. from Elisa system | |
| **4** | **System Configuration Accessories, spares and consumables** | |
| 4.1 | System as specified. | |
| 4.2 | Halogen Lamps : 2 | |
| 4.3 | External Printer | |
| 4.4 | Dust Cover -01 | |
| 4.5 | Set of pipettes consisting of single channel variable volume color pipettes 0.5-10 ul, 5-40 ul, 40-200 ul,200-1000 ul | |
| 4.6 | 8 channel variable volume color multi-channel pipettes 5-50 ul and 50-300 ul. | |
| **5** | **Operating Environment** | |
| 5.1 | The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature,Humidity, etc. for Sudan. | |
| 5.2 | Power supply: 220-240V/ 50 Hz AC Single phase with appropriate plug .The power cable must be minimum 3 Meter | |
| **6** | **Standards and Safety Requirements** | |
| 6.1 | Must submit ISO13485:2003/AC:2007 for Medical Devices AND | |
| 6.2 | CE (93/42 EEC Directives) or USFDA approved product certificate. | |
| 6.3 | Must comply with IEC 61010 Safety requirements for electrical equipment for measurement, control, and laboratory use | |
| **7** | **User Training** | |
| 7.1 | On site operational training till the familiarity of the system and satisfaction of end user shall be provided. | |
| **8** | **Warranty** | |
| 8.1 | Comprehensive warranty for 2 years after acceptance. | |
| **9** | **Maintenance Service During Warranty Period** | |
| 9.1 | During the warranty period supplier must ensure corrective/breakdown maintenance whenever required. | |
| **10** | **Installation and Commissioning** | |
| 10.1 | Supplier must accomplish proper installation and commissioning of the equipment on site. | |
| **11** | **Documentation** | |
| 11.1 | User (Operating) manual in English | |
| 11.2 | Service (Technical / Maintenance) manual in English | |
| 11.3 | List of important spare parts and accessories with their part numbers and costing. | |
| 11.4 | Certificate of calibration and inspection from factory. | |

**ELISA Washer**

| No. | Item Specifications | Fill Your Specifications |
|---|---|---|
| I | **Manufacturer Name:** | |
| II | **Model No.:** | |
| III | **Country of Origin:** | |
| **1** | **Description of Function** | |
| 1.1 | A washer for microtitre plates designed to ensure thorough washing of reagents between Enzyme-Linked Immunosorbent Assay (ELISA) steps. | |
| **2** | **Operational Requirements** | |
| 2.1 | 8 channel. | |
| **3** | **System Configuration** | |
| 3.1 | ELISA Washer, automatic, complete unit with complete accessories. | |
| **4** | **Technical Specifications** | |
| 4.1 | 8-channel strip manifold, open system. | |
| 4.2 | Rinse & prime programme. | |

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| 4.3 | Wash parameters include: 16-character assay name, number of cycles, wash volume, flow rate and variable soak times. | |
| 4.4 | Dispense only and aspirate only modes for reagent addition and removal. | |
| 4.5 | Shall have built-in multi-speed shaker for improved CVs and reduced assay backgrounds. | |
| 4.6 | Shall have crosswise aspiration/double aspiration of flat bottom micro-plates for reduced residual liquid. | |
| 4.7 | Bottom wash mode for rapid dilution of reagent. | |
| 4.8 | Shall have built-in vacuum & pressure pump assembly. | |
| 4.9 | Bottles for waste rinse and wash. | |
| 4.10 | Accommodates flat, U or V-shaped bottom plates. | |
| 4.11 | Wash cycles: Between1-10. | |
| 4.12 | Dispensing volumes from 25 to 3000ul. | |
| 4.13 | Soak time 1-600 seconds. | |
| 4.14 | Fluid flow rate in 150 to 1000ul/well/second to accommodate cellular assays. | |
| 4.15 | Spill-over protection & electronics isolated from fluidics. | |
| 4.16 | Optional automatic buffer switch in flip out aerosol cover or similar. | |
| **5** | **Accessories, spares and consumables** | |
| 5.1 | All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above). | |
| **6** | **Operating Environment** | |
| 6.1 | The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc. | |
| 6.2 | Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 meter in length. | |
| 6.3 | Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back-up shall be supplied with the system. | |
| **7** | **Standards and Safety Requirements** | |
| 7.1 | Must submit ISO13485:2003/AC:2007 for Medical Devices AND | |
| 7.2 | CE (93/42 EEC Directives) or USFDA approved product certificate. | |
| 7.3 | Shall meet IEC 61010-2-081 safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes. | |
| 8 | User Training | |
| 8.1 | On site operational training till the familiarity of the system and satisfaction of end user shall be provided. | |
| **9** | **Warranty** | |
| 9.1 | Comprehensive warranty for 2 years after acceptance. | |
| **10** | **Maintenance Service During Warranty Period** | |
| 10.1 | During warranty period supplier must ensure corrective/breakdown maintenance whenever required. | |
| **11** | **Installation and Commissioning** | |
| 11.1 | The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail. | |
| **12** | **Documentation** | |
| 12.1 | User (Operating) manual in English. | |
| 12.2 | Service (Technical / Maintenance) manual in English. | |
| 12.3 | List of important spare parts and accessories with their part numbers and costing. | |
| 12.4 | Certificate of calibration and inspection from factory. | |

5 **Lab Incubator**

| No. | Item Specifications | Fill your Specifications |
|---|---|---|
| I | **Manufacturer Name:** | |
| II | **Model No.:** | |
| III | **Country of Origin:** | |
| | **1 Description of Function** | |

| | No. | Item Specifications | Fill your Specification |
|---|---|---|---|
| | 1.1 | Incubators are required to incubate living culture at a uniform temperature above ambient. | |
| | 2 | **Operational Requirements** | |
| | | 2.1 System with temperatures up to 50 deg C - specifically for incubating living cultures at 37 deg C and at 45 deg C as required. | |
| | | **3 Technical Specifications** | |
| | | 3.1 Capacity: not less than 30L | |
| | | 3.2 Interior chamber: Stainless steel for easy cleaning and decontamination | |
| | | 3.3 Timer: 1 min. to 100 hours and hold position | |
| | | 3.4 Temp range 5 deg C above ambient to 50 deg C | |
| | | 3.5 Minimum 2 adjustable shelves should be available. | |
| | | 3.6 Internal glass door for the observation | |
| | | 3.7 Temp Accuracy +/-1% of required temp, with inbuilt Temp.Sensor | |
| | | 3.8 Adjustable safety thermostat for temp setting at 1 deg C increment | |
| | | 3.9 Minimum turbulence and no cross contamination | |
| | | 3.10 In case of total breakdown of sensor, the heating should be switched off at approx. within 3 | |
| | | 3.11 There should be a Membrane Keypad with LCD/LED to set and display operating parameters, current status, running time and alarm conditions for time and temperature. | |
| | | 3.12 Interior lighting facility, insulated door fitted with heavy | |
| | | **4 System Configuration Accessories, spares and consumables** | |
| | | 4.1 System as specified- | |
| | | **5 Environmental factors** | |
| | | 5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90% | |
| | | 5.2 The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90% | |
| | | **6 Power Supply** | |
| | | 6.1 Power input to be 220-240VAC, 50Hz fitted with Sudanese plug | |
| | | 6.2 Resettable overcurrent breaker shall be fitted for protection | |
| | | 6.3 Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system. | |
| | | **7 Standards and Safety** | |
| | | 7.1 Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 | |
| | | 7.2 Should be FDA or CE or ISI approved product | |
| | | 7.3 Comprehensive training for lab staff and support services till familiarity with the system. | |
| | | 7.4 Attach original manufacturer's product catalogue | |
| | | **8 Documentation** | |
| | | 8.1 Certificate of calibration and inspection from factory. | |
| | | 8.2 List of Equipments available for providing calibration and routine maintenance support as per manufacturer | |
| | | documentation in service / technical manual. | |
| | | 8.3 User/Technical/Maintenance manuals to be supplied | |
| | | 8.4 List of important spare parts and accessories with their part number and costing. | |
| | | 8.5 Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. | |
| | | Comprehensive warranty for 2 years after acceptance. | |
| | | | |
| **6** | | **Neonatal / Infant NCPAP System** | |

| No. | Item Specifications | Fill your Specifications |
|---|---|---|
| I | **Manufacturer Name:** | |
| II | **Model No.:** | |
| III | **Country of Origin:** | |
| **1** | **Provide CPAP and HFNC for neonatal in NICU with digital control and integrated generator.** | |
| 1.1 | Two Ventilation mode: CPAP and HFNC. | |
| 1.2 | FiO2 adjustable from 21% to 100%. | |
| 1.3 | Easy to use. | |
| 1.4 | Flow volume adjustable from 1LPM to 10LPM without concentration affected. | |
| 1.5 | With integrated PEEP generator | |
| 1.6 | Real-time display of parameters with 4.7 inches approx Anti-Glare Digital screen | |

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| 1.7 | Audible and visual alarm system. | |
| 1.8 | Rechargeable lithium battery with 4 hours of continuous working life. | |
| | On site operational training till the familiarity of the system and satisfaction of end user shall be provided. | |
| **2** | **Accessories** | |
| 2.1 | Breathing circuit kits | |
| 2.2 | Nasal and prong kits | |
| 2.3 | Gas tube (air- oxygen) | |

**7** **Electric ICU Bed with mattress five movement**

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| I | **Manufacturer Name:** | |
| II | **Model No.:** | |
| III | **Country of Origin:** | |
| **1** | **Description of Function** | |
| 1.1 | ICU Beds are required in the Intensive Care for comfort of the patient and to facilitate comfortable transfer to and fro emergency/OT/Wards etc. It is also required to carry out point of care procedures including radiological procedures at the bedside. | |
| **2** | **Operational Requirements** | |
| 2.1 | The system should be electrically operatable and adjustable for heights, trendelenburg etc. | |
| | It should also be having radiotransluscent top | |
| **3** | **System Configuration** | |
| 3.1 | Electrically operated ICU bed with mattress. | |
| **4** | **Technical Specifications** | |
| 4.1 | Should have four section mattress base | |
| 4.2 | Should have X-Ray translucent back section made up of high pressure laminate. | |
| 4.3 | Should have X-Ray cassette holder underneath the back section & should allow insertion of X-Ray cassette from either side of the bed. | |
| 4.4 | Base frame & support frame should be made up of steel for long life & prevention from rusting. | |
| 4.5 | **Should have step less electrical adjustment for the following :-** | |
| | Height : 450-840 mm | |
| | Back section : 0- 50 degrees | |
| | Leg Section : 0-30 degrees | |
| 4.6 | Should have step less pneumatic adjustment for Trendelenburg (25° approx.), antitrendelenburg (15° approx.) | |
| 4.7 | Should have a manual quick release mechanism for back section adjustment during emergency situation | |
| 4.8 | Should be equipped with four articulated half-length tuck away side rails | |
| 4.9 | Should be equipped with large castors (diameter 120 mm approx.) with central braking and steering facility. | |
| 4.10 | Mattress of the Bed should be made up of high density foam with Anti-Microbial agent incorporated into all components that assists in Prohibiting growth of bacteria & fungi and easy to clean. | |
| 4.11 | Mattress should be fully Radiolucent for ease in performing portable X-Rays. | |
| 4.12 | Should have bumpers at all four corners and place for fixing accessories | |
| 4.13 | **Dimensions of bed (approx.) :** | |
| | Length : 2200 -2290 mm | |
| | Width : 850 -1020mm | |
| | Mattress Size : appropriate as per bed size | |
| **5** | **Accessories, spares and consumables** | |
| 5.1 | **Accessories:** | |
| | · I.C.U Bed Mainframe -01 | |
| | · Bed Ends, detachable : 01 pair | |
| | · Articulated half-length tuck away side rails : 04 Nos. | |
| | · IV Rods: 01 No. | |
| | · Mattress 12 cm Thick : 01 No. | |
| **6** | **Operating Environment** | |
| 6.1 | The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature,Humidity, etc. for Sudan. | |

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| 6.2 | Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. | |
| 6.3 | Resettable overcurrent breaker shall be fitted for protection | |
| **7** | **Standards and Safety Requirements** | |
| 7.1 | The unit offered shall be certified to meeting the relevant quality and safety requirements of TUV, CE mark (MDD), USFDA, IEC,Radiation safety, safety of pressurised equipment and any other relevant quality and safety standards . | |
| 7.2 | Manufacturer must have ISO certification for quality standards. | |
| 7.3 | Certified to be compliant with IEC 60601-2-38 Medical Electrical Equipment part 2-38 Particular requirements for safety of Electrically Operated Hospital Beds. | |
| **8** | **User Training** | |
| 8.1 | On site operational training till the familiarity of the system and satisfaction of end user shall be provided. | |
| **9** | **Warranty** | |
| 9.1 | Comprehensive warranty for 2 years. | |
| **10** | **Maintenance Service During Warranty Period** | |
| 10.1 | During the warranty period supplier must ensure corrective/breakdown maintenance whenever required. | |
| **11** | **Documentation** | |
| 11.1 | User (Operating) manual in English | |
| 11.2 | Service (Technical / Maintenance) manual in English | |
| 11.3 | List of important spare parts and accessories with their part numbers and costing. | |
| 11.4 | Certificate of calibration and inspection from factory. | |
| 11.5 | Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. | |

**8** **Electric ICU Bed with mattress three movement**

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| I | **Manufacturer Name:** | |
| II | **Model No.:** | |
| III | **Country of Origin:** | |
| **1** | **Description of Function** | |
| 1.1 | ICU Beds are required in the Intensive Care for comfort of the patient and to facilitate comfortable transfer to and fro emergency/OT/Wards etc. It is also required to carry out point of care procedures including radiological procedures at the bedside. | |
| **2** | **Operational Requirements** | |
| 2.1 | The system should be electrically operatable and adjustable for heights, trendelenburg etc. | |
| | It should also be having radiotransluscent top | |
| **3** | **System Configuration** | |
| 3.1 | Electrically operated ICU bed with mattress. | |
| **4** | **Technical Specifications** | |
| 4.1 | Should have three section mattress base | |
| 4.4 | Base frame & support frame should be made up of steel for long life & prevention from rusting. | |
| 4.5 | **Should have step less electrical adjustment for the following :-** | |
| | Height : 450-840 mm | |
| | Back section : 0- 50 degrees | |
| | Leg Section : 0-30 degrees | |
| 4.6 | Should have a manual quick release mechanism for back section adjustment during emergency situation | |
| 4.7 | Should be equipped with four articulated half-length tuck away side rails | |
| 4.1 | Should be equipped with large castors (diameter 120 mm approx.) with central braking and steering facility. | |
| 4.11 | Mattress of the Bed should be made up of high density foam with Anti-Microbial agent incorporated into all components that assists in Prohibiting growth of bacteria & fungi and easy to clean. | |
| 4.12 | Mattress should be fully Radiolucent for ease in performing portable X-Rays. | |
| 4.13 | Should have bumpers at all four corners and place for fixing accessories | |
| 4.14 | **Dimensions of bed (approx.) :** | |
| | Length : 2200 -2290 mm | |
| | Width : 850 -1020mm | |

| No. | Item Specifications | Fill your Specification |
|---|---|---|
| | Mattress Size : appropriate as per bed size | |
| **5** | **Accessories, spares and consumables** | |
| 5.1 | **Accessories:** | |
| | · I.C.U Bed Mainframe -01 | |
| | · Bed Ends, detachable : 01 pair | |
| | · Articulated half-length tuck away side rails : 04 Nos. | |
| | · IV Rods: 01 No. | |
| | · Mattress 12 cm Thick : 01 No. | |
| **6** | **Operating Environment** | |
| 6.1 | The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature,Humidity, etc. for Sudan. | |
| 6.2 | Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. | |
| 6.3 | Resettable overcurrent breaker shall be fitted for protection | |
| **7** | **Standards and Safety Requirements** | |
| 7.1 | The unit offered shall be certified to meeting the relevant quality and safety requirements of TUV, CE mark (MDD), USFDA, IEC,Radiation safety, safety of pressurised equipment and any other relevant quality and safety standards . | |
| 7.2 | Manufacturer must have ISO certification for quality standards. | |
| 7.3 | Certified to be compliant with IEC 60601-2-38 Medical Electrical Equipment part 2-38 Particular requirements for safety of Electrically Operated Hospital Beds. | |
| **8** | **User Training** | |
| 8.1 | On site operational training. | |
| **9** | **Warranty** | |
| 9.1 | Warranty for 2 years. | |
| **10** | **Maintenance Service During Warranty Period** | |
| 10.1 | During the warranty period supplier must ensure corrective/breakdown maintenance whenever required. | |
| **11** | **Documentation** | |
| 11.1 | User (Operating) manual in English | |
| 11.2 | Service (Technical / Maintenance) manual in English | |
| 11.3 | List of important spare parts and accessories with their part numbers and costing. | |
| 11.4 | Certificate of calibration and inspection from factory. | |
| 11.5 | Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. | |