# Terms of Reference (ToR)

# Supply, Delivery, Installation, Commissioning and Testing of Medical Equipment

| | |
|---|---|
| Project Title | Health System Recovery Project, Nuwakot |
| Type of service | Supply, Delivery, Installation, Commissioning and testing of Medical Equipment |
| Location | District (Trishuli) Hospital, Nuwakot |
| Name of the company/firm | External company/firm/supplier |
| Deadline of ITB submission | 18 February 2021 |
| Anticipated completion of project | 31 March 2021 |

## 1. General Background

Good Neighbors International (GNI) Nepal has been working in Nepal since 2002 with the objective of improving lives of the poor people especially children through education, child protection, and income generating activities, health, WASH, and disaster risk reduction. GNI Nepal has been operating its interventions in 19 districts.

## 2. Project Description and Rationale

Good Neighbors International with funding from the Korea International Cooperation Agency (KOICA) is implementing Health System Recovery Project (HSRP) in Nuwakot District since December 2015 with an objective of improving the health status and psychosocial well-being of community members through post-disaster recovery. HSRP covers 2 municipalities and 5 rural municipalities. The Health System Recovery Project aims:

a. To improve Maternal and Child Health (MCH) status in target communities

b. To improve services of Adolescent Sexual and Reproductive Health (ASRH)

c. To improve students, psycho-social status

d. To improve Health Facility with Functional Equipment

One of the main objectives of HSRP project is to make functional health facilities equipped with necessary medical equipment. KOICA has constructed 10 health posts and a district hospital in Nuwakot district. GNI Nepal is planning to supply all the necessary medical equipment to hospital constructed by KOICA.

## 3. Supply of Medical Equipment

Most of the health facilities in Nuwakot district were destroyed by the 2015 earthquake. HSRP has been working to re-vitalize services at health facilities and district hospital. Therefore, this Project is committed to supply medical equipment to Trishuli District Hospital, Nuwakot as per the government standard.

## 4. Scope of the work

In this phase, District (Trishuli) Hospital will be supported with Medical Equipment. The list of medical equipment is mentioned in ***Annex I.***

**The bidder shall supply either all the equipment or furniture or individual item.**

## 5. Quantity and specification of supply items

The quantity and technical specification of the required Medical Equipment & Furniture is mentioned in technical specification form ***Annex II***.

## 6. Expected Deliverables

Followings deliverables are the expected from the supplier;

- Supply of Medical Equipment as per the specification.
- Transportation of commodities in good condition to District (Trishuli) hospital in Nuwakot.
- Proper installation and commissioning of Medical Equipment in hospital.
- Orientation on operating/handling procedure and safety measures to concerned staffs.
- Maintenance or replacement of the Medical Equipment, in case of problems after sales as per warranty.

## 7. Duration

After the signing of the agreement, it is expected that the delivery, installation, commissioning, testing and orientation should be executed within 45 days from receiving the purchase order.

The project shall be completed by 31 March 2021.

## 8. Budget and Payment Procedure

The supplier/firm should submit a complete budget with detailed breakdown including applicable taxes at the time of submission of **ITB**. The bidding form is given in the ***Annex-III.*** The budget covers the price of the commodity, transportation cost, cost of installation of equipment and orientation to concerned staffs and any other applicable costs.

The supplier/firm shall bear all the tariffs, duties and applicable taxes or charges levied at any stage during the execution of the work. Any loss and/or damage of supplied commodity during packaging, transportation, and installation will be the responsibility of supplier/firm, no compensation will be provided by GNI regarding this loss/damage.

**Mode of Payment**

The payment shall be made in instalment basis.

1. **Advance 25% along with** PO
2. **Final payment 75%** after completion and verification of the tasks

## 9. Acceptance of Proposal

All rights to accept or reject the proposal without giving any notice and reason shall be reserved with GNI Nepal. If deemed necessary, the firm/supplier shall be asked for modification and presentation of the proposal before approval.

## 10. Management of the supply

The selected company/firm will be responsible to supply the commodity and be accountable for the timely delivery of the expected quality and quantity of commodities.

## 11. Bid Security

- The bidder shall furnish, as part of its bid, a bid security amounting 5% should be made through bank Guarantee letter in the name Good Neighbors International with six month's validity.
- Unsuccessful bidders' bid security will be discharged as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity. The successful bidder's bid security will be discharged after signing the agreement.

**The bid security may be forfeited:**

(a) if the Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid Form; or

(b) in the case of a successful Bidder, if the Bidder fails to sign the contract

## 12. Late Bids

Any Bid received by the Purchaser after the deadline for submission of Bids prescribed by the Purchaser, will be declared "Late" or "Rejected" and returned unopened to the Bidder.

## 13. Modification and Withdrawal of Bids

The Bidder is not allowed to modify or withdraw its Bid after the Bid's submission.

## 14. Responsibilities

### a. Supplier/firm

The supplier/firm will be responsible to accomplish the task outlined by this ToR and ensure the delivery of commodities stated above within the agreed budget and timeline.

### b. GNI Nepal

- GNI Nepal guided by its policies and practices will assist the supplier/firm to achieve the objective of this ToR.
- Make physical verification and approve each equipment/ furniture by a person assigned by GNI before and after dispatching of commodities.

## 15. Termination of the contract

GNI Nepal will terminate the contract if the supplier/firm commits a breach in the performance or observance of its obligation under this ToR. The supplier/firm shall be notified in writing a week prior to the termination of the agreement.

## 16. Confidentiality

During the performance of the assignment or any time after expiry or termination of the agreement, the supplier/firm shall not disclose to any person or otherwise make use of any confidential information which the company/firm has obtained or may obtain in the course of the work relating to GNI Nepal and other stakeholders.

## 17. Documents to be submitted

The bid shall contain following documents:

A. Detailed financial proposal: The proposal should include the price of commodities (including tax), transportation cost, installation cost, and any other applicable costs. Prices of commodities can be quoted for different qualities/standard of the same item mentioning specifications of each quality.

   A complete list of proposed commodities with their clear photographs (colored)/ catalogue, technical datasheet, Quality and standard certificates Like: CE, ISO, SFDA, etc., valid authorization letter from the manufacturer should be included with the bid.

B. In addition, the following documents shall be submitted by the bidder.
   a. Copy of company/firm registration
   b. Profile of firm with relevant experiences
   c. A copy of Tax clearance certificate
   d. VAT/ PAN registration

e. Audit report

f. Any other relevant documents

## 18. How submit the bid

The EOI should reach the address below via courier or hand delivery by **17:00 hrs., 18 February 2021.** Please, enclose the bid in an envelope, do seal and mark it with **"ITB to Supply Medical Equipment"**

and send to:

**Good Neighbors International Nepal**

Ekantakuna-13, Lalitpur

Kathmandu, Nepal

# Annex-I

## List of Equipment District (Trishuli) Hospital, Nuwakot

| S.N. | Name of Equipment/ Furniture | Unit | Required Quantity |
|---|---|---|---|
| 1. | PRP machine | Pcs | 1 |
| 2. | Dexa scan | Pcs | 1 |
| 3. | Blood bank fridge | Pcs | 1 |
| 4. | Automated ELISA reader | Pcs | 1 |

# Annex –II
# Technical Specification Form

## 1. PRP machine

| S.N. | Purchaser's Specifications | | Bidders' Compliance | | |
|---|---|---|---|---|---|
| | **Platelet Rich Plasma (PRP) Machine** | | **Yes/ No** | **Ref doc. Page no.** | **Remarks** |
| | **Manufacturer** | | | | |
| | **Brand** | | | | |
| | **Type / Model** | | | | |
| | **Country of Origin** | | | | |
| **1** | **Description of Function** | | | | |
| 1.1 | The Refrigerated Centrifuge (RC) is a mechanical device used to separate biological substances of differing densities. | | | | |
| 1.2 | Brush-less induction drive motor prevents speed variations,Sophisticated anti vibration system for jerk free operations. | | | | |
| 1.3 | Interactive multicolour backlit LCD display, Feather touch Keypads, Emergency lid opening in case of power failure, LED window to see status of centrifugation from a distance. | | | | |
| 1.4 | Vibration free centrifugation with right speed, time & temperature for intact biological properties | | | | |
| **2** | **Operational Requirements** | | | | |
| 2.1 | Programmable microprocessor control system with Pre-Validated dual spin programs having 5 critical centrifuge parameters | | | | |
| **3** | **System Configuration** | | | | |
| 3.1 | PRP Centrifuge, table top with complete unit complete accessories. | | | | |
| **4** | **Technical Specifications** | | | | |
| 4.1 | Maximum speed: 6,000 rpm approx | | | | |
| 4.2 | Maximum RCF: 5000 (g) approx | | | | |
| 4.3 | Maximum capacity: 120 ml approx | | | | |
| 4.4 | Temperature: 22°C | | | | |
| 4.5 | Digital displays for Programme No, temperature, Speed, RCF, & Time. | | | | |
| 4.6 | At least 5 program memories. | | | | |
| 4.7 | Timer 1 - 99 minutes and hold position. | | | | |
| 4.8 | At least 5 acceleration / 5 braking rates. | | | | |
| 4.9 | Maintenance free induction motor. | | | | |
| 4.10 | Totally CFC free refrigerant fluid and insulation. | | | | |
| 4.11 | Easy to clean ABS rounded corner body & Stainless steel inner chamber | | | | |
| 4.12 | Shall incorporate safety features for Imbalance detection, lid interlock, over temperature, rotor over speed etc. | | | | |

| S.N. | Purchaser's Specifications | Bidders' Compliance | | |
|---|---|---|---|---|
| **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: 220-240V/ 50 Hz AC Single phase fitted with appropriate plug type D (3 pins). | | | |
| **7** | **Standards and Safety Requirements** | | | |
| 7.1 | Must submit ISO 13485:2003/AC:2007 **AND** | | | |
| 7.2 | CE (93/42 EEC Directives) or USFDA approved product certificate. | | | |
| 7.3 | Must comply with IEC/TR 61010-3-020 :Safety requirements for electrical equipment for measurement, control, and laboratory use | | | |
| **8** | **User Training** | | | |
| 8.1 | Must provide user training (including how to use and maintain the equipment). | | | |
| **9** | **Warranty** | | | |
| 9.1 | Comprehensive warranty for 2 years after acceptance. | | | |
| **10** | **Maintenance Service During Warranty Period** | | | |
| 10.1 | During the warranty period supplier must ensure planned preventive maintenance (PPM) and 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. | | | |

## 2. Dexa Scan

**Technical Specifications of Dexa Scan**

| S.N. | Technical Specification | | Bidder's Proposed Specifications | Page no. in technical datasheet | Deviation (If any) |
|---|---|---|---|---|---|
| | **Manufacturer** | | | | |
| | **Brand** | | | | |
| | **Type / Model** | | | | |
| | **Country of Origin** | | | | |
| **1.0** | **Description of Function** | | | | |
| 1.1 | Bone density scanning, also called dual energy x-ray absorptiometry (DXA or DEXA) or bone densitometry, is an enhanced form of x-ray technology that is used to measure bone loss. DEXA is today's established standard for measuring bone mineral density (BMD). | | | | |
| **2.0** | **Operational Requirements** | | | | |
| 2.1 | It must be a fan beam X-ray bone densitometer, which uses two different energy levels produced by X-ray tube to estimate bone mineral content (BMC) and bone mineral density (BMD). It must use a low level of X-rays. | | | | |
| **3.0** | **System Configuration** | | | | |
| 3.1 | Dual Energy X-Ray Absorptiometry Densitometer with complete accessories. | | | | |
| **4.0** | **Technical Specification** | | | | |
| **A** | **Scanner Hardware X-ray Source** | | | | |
| i | X-ray System Switched pulse or continuous pulse dual energy for dual energy scanning. | | | | |
| ii | Fan beam technology for faster acquisition | | | | |
| iii | High frequency oil cooled X-ray Generator. | | | | |
| iv | Internal reference system for calibration. It must have automated internal calibration system with ability to store and analyse data. | | | | |
| v | Please mention the technology that results in low dose. | | | | |
| **B** | **Detector System** | | | | |
| i | Multi Detector Array Scanning Method | | | | |
| ii | Min no of detector array= 16 or more | | | | |
| iii | Multi element High resolution digital detector array | | | | |

| | | | | |
|---|---|---|---|---|
| iv | Please specify how scattered radiation is managed | | | |
| **C** | **Scan Table** | | | |
| i | Table dimensions: Please specify | | | |
| ii | Scan window size to be 195 cm * 65 cm or more | | | |
| iii | Table patient weight limit = Min 150 kg expected | | | |
| iv | Patient positioning : cross hair laser light | | | |
| v | Motorized scan table with integrated movable C Arm | | | |
| **D** | **Patient Dose** | | | |
| i | Estimated Skin Entrance Dose for AP Spine and Femur < 50µGy preferred. | | | |
| **E** | **Scanning time** | | | |
| i | Please mention time taken in the following scans:<br>(Lower time duration will be preferred)<br>Total Body<br>AP Spine / Femur<br>Hip | | | |
| **F** | **Quality Assurance** | | | |
| i | Built in software based QC. | | | |
| ii | Automatic PASS/FAIL Quality Control. | | | |
| iii | Scan Display Capability should be available. | | | |
| iv | Window / level control for Image Optimization. | | | |
| v | Express Exam Work flow Management. | | | |
| vi | One time Auto Analysis with Histogram | | | |
| vii | Capability to draw outline of vertebrae automatically should be available. | | | |
| viii | Auto Hip Positioning capability. | | | |
| ix | Reposition/ Rescan Feature. | | | |
| x | Automatic Scan Comparison for Serial Exams. | | | |
| xi | Least Significant Change Configuration. | | | |
| xii | Automatic calibration using internal reference system | | | |
| xiii | Automatic quality control program with multiple system checks. | | | |
| xiv | No additional need for Anthropomorphic phantom. | | | |
| **G** | **Software required for clinical application** | | | |
| i | AP Lumbar Spine with Automatic Low Density Analysis and Scoliosis. | | | |

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| | | | | |
|---|---|---|---|---|
| ii | Decubitus Lateral Spine with Baseline Compensation. | | | |
| iii | Proximal Femur, Automatic Low Density Analysis and Hip Structure Analysis (HAS) Feature. | | | |
| iv | Dual Hip Feature | | | |
| v | Forearm examination feature. | | | |
| vi | Whole Body BMD. | | | |
| vii | Advanced Body Composition Analysis with Inner core. | | | |
| viii | Visceral Fat Assessment. | | | |
| ix | IVA Imaging Capability. | | | |
| x | Fracture Assessment Capability. | | | |
| xi | Paediatric Analysis for Spine , Femur and Forearm. | | | |
| xii | Paediatric whole body with body composition assessment. | | | |
| xiii | Comparison to previous scan | | | |
| xiv | Vertebral Assessment Dual Vertebral assessment. | | | |
| xv | Hand application | | | |
| xvi | Orthopaedic knee application. | | | |
| xvii | Reverse Lateral view option. | | | |
| xviii | Hip Axis length with reference population | | | |
| xvix | System should have integrated TBS capacity and /or 3D DEXA | | | |
| Xx | Capability to scan small region of interest. | | | |
| Xxi | FRAX 10 years Fracture Assessment Feature | | | |
| xxii | Dual Hip report capability. | | | |
| **H** | **Reference data:** | | | |
| i | Reference Data m > 18000 | | | |

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| | | | | |
|---|---|---|---|---|
| ii | Default NHANES III standardized database | | | |
| iii | Age Sex and Ethnic matched reference data | | | |
| **5** | **Accessories, spares and consumables** | | | |
| 5.1 | Accessories:<br>Table pad and positioning accessories. | | | |
| 5.2 | 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 system offered shall be designed 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 mere in length. | | | |
| **7** | **Standards and safety requirements** | | | |
| 7.1 | Must submit ISO 13485:2003/AC:2007 for Medical Devices AND | | | |
| 7.2 | European CE (93/42 EEC Directives) and / or USFDA approved product certificate. | | | |
| 7.3 | Electrical safety confirms to standards for electrical safety IEC60601-1 (General requirement for Electrical safety of Medical Equipment). | | | |
| **8** | **User and maintenance Training** | | | |
| 8.1 | Must provide user training to the doctor at the country of origin of the equipment . | | | |
| 8.2 | Must provide application and maintenance training at the country of origin of the equipment to the in house biomedical engineer. | | | |
| 8.3 | On the site training to the hospital staffs until they are familiar with the system. | | | |
| **9** | **Warranty** | | | |

| | | | | |
|---|---|---|---|---|
| 9.1 | Comprehensive warranty for 2 years from the date of installation and acceptance. | | | |
| **10** | **Maintenance Service During Warranty Period** | | | |
| 10.1 | During the warranty period supplier must ensue 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 number and costing. | | | |
| 12.4 | Certificate of calibration and inspection from factory. | | | |

## 3. Blood bank fridge

| S.N. | Purchaser's Specifications | | Bidders' Compliance | | |
|---|---|---|---|---|---|
| | **Blood Bank Refrigerator** | | **Yes/ No** | **Ref doc. Page no.** | **Remarks** |
| | **Manufacturer** | | | | |
| | **Brand** | | | | |
| | **Type / Model** | | | | |
| | **Country of Origin** | | | | |
| **1** | **Description of Function** | | | | |
| 1.1 | Blood Bank Refrigerator is used to store blood bags under controlled temperature. | | | | |
| **2** | **Operational Requirements** | | | | |
| 2.1 | System required with weekly chart recorder and digital display. | | | | |
| **3** | **System Configuration** | | | | |
| 3.1 | Blood Bank Refrigerator with weekly chart recorder, digital display and complete accessories. | | | | |
| **4** | **Technical Specifications** | | | | |
| 4.1 | **Temperature range:** | | | | |

| S.N. | Purchaser's Specifications | Bidders' Compliance | | |
|---|---|---|---|---|
| | Must have adjustable temperature control range from +1 ℃ to +8 ℃, factory pre-set at 4 ℃. | | | |
| 4.2 | Capacity must accommodate 350 or more units and internal volume must be 700 litres. | | | |
| 4.3 | **Refrigerator system:**<br>• The system must have high density CFC–free urethane foam insulation to protect cabinet from ambient temperature fluctuation.<br>• The system must have positive, forced, air circulation to maintain temperature uniformity at all shelf levels, with quick recovery +/- 1 ℃.<br>• The system must have sensors for activating automatic defrost cycle to minimize the frost build up.<br>• The system must have automatic condensation removal with no requirement for separate drainage lines. | | | |
| 4.4 | Internal construction must be made up of high grade stainless steel (min 22 G) External construction Corrosion resistant sheet at least 1 mm thickness. | | | |
| 4.5 | **Internal Temp Control**:<br>• System must have temperature control range from +1 ℃ to +8 ℃.<br>• Temperature control resolution must be better than 0.1 ℃.<br>• Cooling down time of max of 150 min on half load. | | | |
| 4.6 | External ambient temp must perform in ambient temp up to +43 ℃. | | | |
| 4.7 | Door System must lockable double glass doors for better safety | | | |
| 4.8 | **Safety system:**<br>• System must have large and clear digital displays for the set/run parameters.<br>• The system must have weekly chart recorder temperature changes<br>• The system must have key operated set point for the added security. | | | |
| 4.9 | **Alarms:**<br>• System must have audible/visual warnings for over-temperature under temperature and power failure with visual status reports on critical functions.<br>• System must have battery backup and connections for remote alarm contacts | | | |
| 4.10 | Must have adjustments for uneven bases. The adjustments must be easy to use like rotating a screw at the legs in the base. | | | |
| 4.11 | Scratch resistant internal lining of the cabinet (stainless steel or aluminium). | | | |
| 4.12 | Must be easy to clean with ready available materials. | | | |
| **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 | | | |

| S.N. | Purchaser's Specifications | Bidders' Compliance | | |
|---|---|---|---|---|
| | normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc. | | | |
| 6.2 | Power supply: 220-240V/ 50 Hz AC Single phase fitted with appropriate plugs to meet purchaser's country requirements. The power cable must be minimum 3 metres long. | | | |
| 6.3 | Suitable Automatic Voltage regulator/stabilizer meeting international standards must be supplied. Broad specifications are: Automatic Type Input 150-280V, Output 220 V +/- 7 %, 50 Hz. Single phase, AC with automatic 2-4 sec Cut Off and 6-9 minutes' restart delay. Quick start arrangements for bypassing the start delay. Suitable MCB on input voltmeter and indicators on Front Panel. Input Pore Cable with 15 A Plug and six way output terminal strip for two outlets | | | |
| **7** | **Standards and Safety Requirements** | | | |
| 7.1 | CE or USFDA approved product certificate. | | | |
| 7.2 | Must comply with WHO/UNICEF Specification Reference: BTS/RF.1 | | | |
| 7.3 | Test and inspections as per WHO Procedure reference: Laboratory Test Procedure: Standard Test Procedure: BTS/ Proc. / 3. | | | |
| 7.4 | Shall meet IEC 60335-1and -2-24 General requirements of electrical safety. | | | |
| **8** | **User Training** | | | |
| 8.1 | Must provide user training (including how to use and maintain the equipment). | | | |
| **9** | **Warranty** | | | |
| 9.1 | Comprehensive warranty for 2 years after acceptance. | | | |
| **10** | **Maintenance Service During Warranty Period** | | | |
| 10.1 | During the warranty period supplier must ensure planned preventive maintenance (PPM) and 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 number and costing. | | | |

## 4. Automated ELISA reader

| S.N. | Purchaser's Specifications | | Bidders' Compliance | | |
|---|---|---|---|---|---|
| | **ELISA Reader with Printer** | | **Yes/ No** | **Ref doc. Page no.** | **Remarks** |
| | **Manufacturer** | | | | |
| | **Brand** | | | | |
| | **Type / Model** | | | | |
| | **Country of Origin** | | | | |
| **1** | **Description of Function** | | | | |
| 1.1 | ELISA Reader is required to Read the Colour 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** | **System Configuration** | | | | |
| 3.1 | ELISA Reader with Printer and complete with accessories. | | | | |
| **4** | **Technical Specifications** | | | | |
| 4.1 | Must have 8-12 measuring channels & reference channels | | | | |
| 4.2 | Must have wavelength range of 340- 750 nm 6 filters 340, 405. 450, 492, 540, 620nm with provision for fitting any additional filters | | | | |
| 4.3 | Must have an absorption range of 0-4.000A | | | | |
| 4.4 | Must have a resolution of 0.001A | | | | |
| 4.5 | Must read within 6-8 seconds | | | | |
| 4.6 | The control panel must have soft colour touch screen display, capable of showing graphs | | | | |
| 4.7 | Must have external & internal programmable time & speed shaking | | | | |
| 4.8 | Must be able to read all types of plates | | | | |
| 4.9 | Must have a single halogen lamp with save features as light source | | | | |
| 4.10 | Must have user defined programs 30 or more. | | | | |
| 4.11 | RS232/USB output for printer, PC connectivity and data acquisition must be there | | | | |
| 4.12 | Must have data memory of 300 plates. | | | | |
| 4.13 | Must have external printer, capable of printing complete results & graphs etc. from Elisa system | | | | |
| **5** | **Accessories, spares and consumables** | | | | |
| 5.1 | **Accessories:**<br>• Halogen lamp: 2 nos.<br>• Thermal print paper: 10 Rolls/Z Fold<br>• Set of pipettes consisting of single channel variable volume colour pipettes 0.5-10 ul, 5-40 ul, 40-200 ul, 200-1000 ul<br>• 8 channel variable volume colour multi-channel pipettes 5-50 ul and 50-300 ul<br>• Dust Cover -01 no. | | | | |
| 5.2 | 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 | | | | |

| S.N. | Purchaser's Specifications | Bidders' Compliance | | |
|---|---|---|---|---|
| | of every item included in their offer (including items not specified above). | | | |
| **6** | **Operating Environment** | | | |
| 6.1 | The system 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 – 240V AC, 50Hz fitted with appropriate plug. The power cable must be at least 3m in length. | | | |
| 6.3 | Suitable UPS with maintenance free batteries for minimum 30 min. back-up must be supplied with the system. | | | |
| **7** | **Standards and Safety Requirements** | | | |
| 7.1 | Must be USFDA or CE (93/42 EEC Directives) or UL or TUV approved product | | | |
| 7.2 | Must be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities. | | | |
| 7.3 | Shall meet IEC 61010-1 safety requirements for electrical equipment for measurement, control, and laboratory use. | | | |
| **8** | **User Training** | | | |
| 8.1 | Must provide user training (including how to use and maintain the equipment). | | | |
| **9** | **Warranty** | | | |
| 9.1 | Comprehensive warranty for 2 years after acceptance. | | | |
| **10** | **Maintenance Service During Warranty Period** | | | |
| 10.1 | During the warranty period supplier must ensure corrective/breakdown maintenance whenever required. | | | |
| **11** | **Installation and Commissioning** | | | |
| 11.1 | Supplier must accomplish proper installation and commissioning of the equipment on site. | | | |
| **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. | | | |

## Annex - III

## Bid Submission Form (Medical Equipment)

| SN | Name of Equipment/ Furniture | Unit | Quantity | Brand Name | Unit Rate Including VAT | Total Amount in Figure NRs. | Specification form filled? (Yes/No) | Detail catalog/manual of product attached? | Standard and safety related document attached? | Authorization document attached? |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. | PRP machine | Pcs | 1 | | | | | | | |
| 2. | Dexa scan | Pcs | 1 | | | | | | | |
| 3. | Blood bank fridge | Pcs | 1 | | | | | | | |
| 4. | Automated ELISA reader | Pcs | 1 | | | | | | | |