**No.11-PROJ/PMR/RIMS-12:** **Imphal, the 07th November, 2012**
**Due on 10/12/2012.**

**1. Automated Immunoassay System**

1. Fully Automated system with continuous loading facility
2. Preferably an open system where any kits from any manufacturer available in ELISA can be programmed and assayed
3. Upgradable to CLIA
4. Throughput 40-50 tests/Hour
5. Internal-External probe wash for no carryover
6. Multi-shot dispensing
7. 8 probe wash head for faster washing
8. Possibility to maintained two different temperature during incubation
9. Pre-dilution option before dispensing sample/reagent
10. Level sensor for wash, rinse and waste bottle
11. Option for connection with a computer through USB port
12. 4 channel optical system with NIST traceable calibration
13. NRTL listed and CE certified

2. **Dual Energy X-ray Absorptiometry (DEXA)**

**Technical Specifications:**

I. **Scanning Method-** Fan beam technology.
II. **X-ray Source:** Constant Potential Source / Switched Pulse Dual Energy with dose efficient k-edge filter
III. **Detector System** : Nal scintillation detector in pulse counting mode/ Multi Element / Direct Digital Detectors - Solid state with fast pulse counting technology
IV. **BMD Precision** : Better Than 1%
V. **Scan Time**: A/P Spine </ = 30 Secs; Femur </ = 30 Secs
VI. **Calibration**: Automatic calibration Technique for test Programme & Quality Control
VII. **Patient Position** : Cross Hair Laser Light
VIII. **Scan region** - 190cmx60cms or more for Total Body Analysis
IX. **Patient Weight Limits:** more than 155kg
X. **Reference data:** South East Asia regional databases.
XI. **Table Height:** 25"
XII. **Magnifications:** None
XIII. **Sample Size(mm):** 0.60x1.05 or less for AP Spine & Femur
XIV. **Software for the following:**
    a. AP Spine
    b. Dual Femur
    c. Total Body with Body Composition (Fat Analysis)
    d. Vertebral Assessment (AP & Lateral Views)
    e. Lateral spine BMD
    f. Fore Arm

g. Comparison to Previous Scan
h. Composer
i. Pediatric software ( Spine & Total Body for age group 5-19)
j. Orthopedic Hip Analysis
k. DICOM

XV. **Standard Information required from Vendor**

a. Pre-installation requirements - Please Specify Including Room Size & Site Plan
b. No of Installations in India & Region
c. No of Trained Service Engineers in Region

3. **UPS:** 2 KVA with 30 mins Backup

4. **AERB Type approval**: Type approval must be provided for the model quoted

**5. Quantitative Ultrasound (Portable Ultrasound based Bone Mineral Densitometry)**

1. Should be FDA Approved.
2. Display – Min. 6.5" Color LCD VGA with tilts and inverts for optimal viewing
3. Weight – 13 Kgs or Less
4. Dimensions – 12" x 11" x 24" or Less
5. Printer – Internal – Thermal printer with graphical output
   External – Inkjet/Laserjet
6. USB Port facility
7. Measuring Parameters – Stiffness Index from BUA, SOS
8. Precision – less than 2%
9. Reference Data – Multi Region
10. Measurement Time – Less than 10 Sec
11. Electrical Req. - 100 - 240V AC
12. Frequency – 50/60 Hz
13. Operating Temp. – 15–35 Degree
14. Transducer - Quarter wave matched broadband single element
    Single element transmission and reception
    Fluid coupled, through transmission.

**6. Generator**

1. Maximum output 5.5 KVA
2. Engine type Air cooled
3. Engine HP - not less than 13 HP
4. Engine Governing - Electric Governor (Load Sensitive)
5. Choke – Auto
6. Engine Control Display – i Monitor equipped
7. Starting – Electric/Recoil start
8. Fuel type – Petrol/diesel
9. Fuel Tank Capacity – not less than 15 liters
10. Oil Alert System
11. AC Circuit Protector
12. Continuous Operating Hours – Minimum of 4 hours
13. Ability to run air conditioner, refrigerator, TV, Fan and light simultaneously

**7. Back Battery for UPS for DEXA & Ultrasound (1.5 KW)**

**8. Urinary Biomakers**

a. Urinary Deoxypyridoline
b. Urinary C- Telopeptidse of Collagen I (CTx)
c. Urinary N-Telopeptides of Collagen I (NTx)

**Prof. S. Sekharjit Singh**
**Director,**
**Regional Institute of Medical Sciences,**
**Imphal**