

Requirements and technical specifications for the biomedical equipments for Amppipal Hospital, Palungtar Municipality-3, Gorkha.

1. Server for EHR (Electronic Health Record).X1(one set)

1. Tower type server
2. Processor Intel Xeon E-2126 G 3.3 Ghz Quad Core
3. Memory 32 GB DDR4
4. Hard Drive 2TB
5. 2 year Warranty
6. Provided with a mouse and a keyboard
7. Cat 6 cable 1 roll provided.
8. 24 Ports Gigabit Ethernet Switch x1 pic , rack mountable

2. NAS X1(one)

1. 2 Bay,
2. 1TB Storage,
3. 1GB RAM
4. 1,7 Ghz Quad Core
5. 1GBE port
6. 2 years warrenty

3. Power back up X1(One set)

1. 12 V 200 AH, 6 pieces battery.
2. 2 years warranty

4. ECG Machine x 1(One)

1. Simultaneous 3 Channel ECG Recording with 12 lead simultaneous acquisition.
2. High resolution screen display showing at least three leads in real time.
3. Built-in Rechargeable Lithium Ion Battery.
4. Built-in ECG Parameters measurements and Interpretation.
5. Portable
6. Electrical supply: 200-240 V, 60-50 Hz, $\pm 10\%$
7. Mains supply cable of at least 3 meter length.

5.USG x1 (one)

1. Good image quality, easy to use
2. Dynamic range of at least 180 dB
3. Frequency range of at least 1-15 MHz
4. Convex array probe (with at least triple frequency, bandwidth of at least 3MHz, including 3.5 MHz frequency)
5. linear probe (with a t least triple frequency, bandwidth of at least 2MHz including 3 MHz frequency) &
6. Minimum Two active ports
7. At least 15 inch display with high resolution
8. Modes: B mode, M mode & power Doppler mode
9. Trackball or Touch pad in user panel
10. Frame by frame image memory or cine loop
11. Doppler display to indicate blood flow both numerically and in color
12. Connection port for image printer
13. B/W Thermal printer provided.
14. HD/USB storage unit
15. HD of at least 500 GB.
16. Unit display to be at least 512 by 512 pixels with at least 256 gray scale levels and 256 color scale levels
17. Frozen image zoom of at least 10X & dynamic real time zoom of at least 4X
18. Adjustable depth & gain
19. Alphanumeric annotation possible
20. Electrical supply: 200-240 V, 60-50 Hz, $\pm 10\%$
21. UPS to allow operation at $\pm 0\%$ of local rated voltage with one hour operation in the event of mains power failure.
22. Mains supply cable of at least 3 in length.
23. Useful for abdominal, gynecology, obstetric, cardiac and musculoskeletal ultrasound.
24. Measurement & Calculation software packages installed.
25. 3 years warranty from manufacturer and supplier
26. Unit to be supplied on stable, mobile trolley fitted with wheels that can be braked.
27. DICOM 3.0 Compatible

6.Semiautomatic biochemistry analyzerx1 (one)

1. Uses wet chemistry reagent.
2. Uses external cuvettes and integrated flow cell.
3. More than 200 programmable channels.
4. Key board should be touch/mechanical.
5. 5 assay types: End point, Fixed time, Kinetic, absorbance and 1-point calibration with option for extended keyboard.
6. Calibration types: Linear factor, multi point, pint to point and Log-Logit.
7. In kinetic essay measurement interval should be 1 second.
8. 3 levels control with day to day level Jennings chart stored and displayed.
9. Flow cell must be quartz.
10. Flow cell must have optical path of 10mm.
11. Flow cell volume should be less than 20 μL .
12. Measurement range should be 25, 30, 37 degree celsius with 1 degree increment.
13. Standard wavelengths in the range of 340-700.
14. Store 1000 results.
15. Analyzer resolution must be 0.0001 absorbance unit and absorption range from 0.00-3.00 unit.
16. Should maintain nominal Temp and the heat should be disbursed through an cooling mechanism
17. Input voltage- 220V-240V AC, 50Hz ($\pm 10\%$)
18. Capable of being stored and operating continuously in ambient temperature of 0 to 40 deg C and relative humidity of 15 to 90% in ideal circumstances.
19. Manufactured in Europe; Should be FDA/CE/BIS approved product; Manufacturer and supplier should have ISO 13485/US (FDA)/EU(CE) certification for quality standards; Shall meet internationally recognized for Electromagnetic Compatibility (EMC) for electrometrical equipment: 61326-1; Certified to be compliant with IEC 61010-1, IEC 61010-2-281
20. Compatible with Humalizer 3500 reagents
21. 3 years warranty

7.Coulter Counter (one)

1. Automated 3 part differential hematology analyzer
2. Five-part differential.
3. 29 parameters, all different WBC's should be measured directly.
4. Advanced, integrated self-cleaning system.
5. On-screen patient results trending.
6. Stores 5,000 test results with histograms and scatter grams.
7. Integrates with common practice management systems.
8. maximum sample required 100 μL sample size permits whole blood analysis from venous collections.

9. Parameters Total Leukocytes (White Blood Cells) and Differential (in absolute numbers and %) for: Neutrophils, Lymphocytes, Monocytes, Eosinophils, Basophils.
10. Sample Material Capillary or venous (EDTA) whole blood.
11. Linearity of all parameters. 11) Measuring Time Within 60 Sec.
12. System must have throughput of at least 60 samples per hour in all discrete modes.
13. Manual mode.
14. Stat mode.
15. Pre-diluted mode and whole blood mode
16. Heat Dissipation: Should maintain nominal Temp and the heat should be disbursed through an cooling mechanism.
17. Operating temperature: 4-50°C
18. Reagents: All the reagents required for 1000 tests should be supplied with the equipment along with one set of tri level control.
19. Closed System rates to be closed for all test.
20. Capable of being stored and operating continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90% in ideal circumstances.
21. 3 years warranty including all spares and calibration
22. Manufactured in Europe; Should be FDA/CE/BIS approved product.; Manufacturer and Supplier should have ISO 13485/US(FDA)/EU(CE) certification for quality standards; Shall meet internationally recognized for Electromagnetic Compatibility(EMC) for electro medical equipment: 61326-1.; Certified to be compliant with IEC 61010-1, IEC 61010-2-281, 61010-2- 101 for safety
23. Light source/Lamp-1 no; Micro pipettes(5 No.) - 2 variable(5-50), (100-1000) 5. Tips 500 - small and 500- big provided as spare.

8. Refrigerator x1 (one)

1. Branded: Samsung or equivalent
2. At least 170 liters capacity
3. Single door
4. 10 years warranty in compressor

9. X ray Cassette (2) two for CR machine

1. Cassette for (CR 10-X) machine compatible with AGFA
2. With PSP plate
3. 5 KVA sterilizer with ISO branded company