HSCC/PUR/NEIAH/Medical Equipment/2014 Date: 21.08.2014

Amendment-II

Ref.: IFB Reference: HSCC/PUR/NEIAH/Medical Equipment/2014 dt. 19.08.2014

Sub.: Procurement of Medical Equipment for NEIAH, Shillong.

Section-I

Schedule No.	Name of Equipment/Item	Qty.	Depart-wise Distrubution	EMD (Rs.)	Estimated Cost (Rs.)
1	Digital X-Ray Machine	2	1 each for Ayurveda & Homeopathy – Diagnostic	260,000.00	13,000,000.00
2	Ultrasound Machine	2	1 each for Ayurveda & Homeopathy – Diagnostic	120,000.00	6,000,000.00
3	Electrocardiograph (12 channels)	3	1 each for Ayurveda & Homeopathy – Diagnostic + 1 for Ayurveda Physiology Lab.	12,000.00	600,000.00
4	Electrocardiograph (Single channels)	1	For Deptt. of Physiology – Ayurveda	3,000.00	150,000.00
5	Multiparameter Monitor	6	5 (for Ayurveda OT) + 1 (Homeopathy OT)	48,000.00	2,400,000.00
6	Electro-Hydraulic Operation Table	2	1 (for Ayurveda OT) + 1 (Homeopathy OT)	80,000.00	4,000,000.00
7	Ophthalmic Electro-Hydraulic Operation Table with Head Rest	1	1 (for Ayurveda OT)	40,000.00	2,000,000.00
8	OT Ceiling Shadow less Lights (Double Dome)	2	1 each for Ayurveda & Homeopathy OT	64,000.00	3,200,000.00
9	OT Ceiling Shadow less Spot Light (Single Dome)	2	1 each for Minor OTs	28,000.00	1,400,000.00
10	Boyles Anesthesia Machine	3	2 For Ayurveda OT + 1 For Homeopathy OT	96,000.00	4,800,000.00
11	Rigid Laryngoscope (Adult & Pediatrics)	5	Ayurveda (3 for OT + 1 for Path. Lab.) & 1 for Homeopathy (OT)	60,000.00	3,000,000.00
12	Flexible Sigmoidoscope with Light Source	2	For Ayurveda OT	52,000.00	2,600,000.00
13	Rigid Sigmoidoscope with Light Source	1	For Homeopathyy OT	20,000.00	1,000,000.00
14	Mobile Light Shadow less	2	For Labor Rooms (Ayurveda)	28,000.00	1,400,000.00
15	Spirometer	2	1 each for Ayurveda & Homeopathy Physiology Lab.	16,000.00	800,000.00
16	Electro Cautery	3	1 (for Ayurvedic OT) + 1 (for Homeopathic OT) + 1 (for Labour Room – Ayurveda)	30,000.00	1,500,000.00
17	Automated Biochemistry Analyzer	1	Pathology Lab. (Rog-Nidan) – Ayurveda	23,000.00	1,150,000.00

18	Automatic Cell Counter 5 part with Automatic Reticulocyte Count	1	Homeopathy – Deptt. of Physiology	50,000.00	2,500,000.00
19	Deep Freezer (-20 deg.)	1	Ayurveda (Misc.)	5,200.00	260,000.00
20	Refrigerator Frost Free (400 ltrs.)	3	Ayurveda (Misc.)	2100	105000
21	Centrifuge (medium speed electric)	3	2 for Physiology Deptt.(Homeopathy), 1 for Biochemistry Deptt. (Homeopathy)	6,000.00	300,000.00
22	Centrifuge (with speed control-Table Top)	2	1 for Biochemistry Deptt. Homeopathy) 1 for Physiology Lab. (Ayurveda)	3,000.00	150,000.00
23	Bone Drill Machine & Bone Cutter	2 each	1 each for Ayurvedic & Homeopathy OT	40,000.00	2,000,000.00
24	Suction Machine / High-Pressure Noiseless Suction Unit	11	5 for Ayurveda OT, 3 for Ayurveda (Misc.), 1 for Homeopathy Hospital, 2 for Homeopathy OT	27,500.00	1,375,000.00
25	Water Bath	28	2 for Biochemistry (Homeopathy), 25 for Homeopathy Pharmacy + 1 for Ayurveda Path. Lab.	16,800.00	840,000.00
26	Electronic Balance (0.001gm – 500gm)	3	2 for Biochemistry (Homeopathy), 1 for Homeopathy Pharmacy	6,000.00	300,000.00
27	Colorimeter (photo electric)	3	1 for Ayurveda Physiology Lab. + 2 for Homeopathy Physiology Lab.	12,000.00	600,000.00
28	Colorimeter	3	2 for Homeopathy Biochemistry + 1 for Homeopathy Pharmacy Lab.	12,000.00	600,000.00
29	Dissecting Microscope	2	For Homeopathy Phramacy	8,000.00	400,000.00
30	Binocular Microscope (Medical/Student Type)	25	Homeopathy Anatomy	25,000.00	1,250,000.00
31	Binocular Microscope (Teaching/Research)	1	Ayurvedic Pathlab.	4,000.00	200,000.00
32	Monocular Microscope with Oil Immersion	2	1 for Ayurveda Physiology Lab. + 1 for Ayurveda Path. Lab.	8,000.00	400,000.00
33	PAN Endoscopy Surgical Instruments	Set		27,000.00	1,350,000.00
34	Nebulizer	6	Ayurveda	18,000.00	900,000.00
35	Phototherapy Unit (LED)	1	Ayurveda (Labour Room)	4,000.00	200,000.00
36	Droni	2	Panchkarma Package for Ayurveda. All items must be	22,000.00	1,100,000.00
	Steam bath Chambers	2			

	Avagahasweda tub	2	quoted.		
	Sirovasti cap	2			
	Vamanpeetha	2			
	Nadiswedayantra	2			
	Dhara Stand	1			
	Dharapatra	1			
37	Autoclave (Vertical Type)	2	1 for Ayurveda Path. Lab. & 1 for Ayurveda Labor Room.	8,000.00	400,000.00
38	Autoclave – High Pressure	3	1 for Ayurveda OT & 2 for Ayurveda Labor Room.	30,000.00	1,500,000.00

Section – VII
Technical Specifications

Item No. 37

AUTOCLAVE (VERTICAL) – High Pressure

1. **Description of Function:** Steam Sterilizers or Autoclaves are required to sterilize objects under high temperature and pressured steam.
2. **Operational Requirements:** Suitable for hospital dressings, linen, surgical instruments, glassware, culture media and laboratory ware etc.
3. **Technical Specifications:-**
   1. Single door high pressure steam sterilizer with double/triple walled, steam jacket and separate boiler
   2. Material of construction:
      - **a.** Sterilizer chamber SS 316
      - **b.** Door SS 316
      - **c.** Jacket MS
      - **d.** Loading carriage SS 316
      - **e.** Transfer trolley: MS, painted
      - **f.** Door Gasket: Silicon or better
      - **g.** Insulation: fiber glass resin bonded wool or better
      - **h.** Insulation cover: SS sheets
   3. Chamber capacity 50-55 liters
   4. Operating temperature 121^0C - 138^0C pressure 1.2 to 2.0 kg/ cm^2 of steam pressure
   5. Sterilizer should be provided with steam generator

6. Spring loaded safety valves and automatic vacuum breaker for jacket
7. Removable plug screen for chamber drain
8. SS baffle for even steam distribution in the chamber
9. Safety valve protection against poor pressure.
10. Should have Silicon rubber ring gasket in the door for locking. Closing and locking of the door should be completely automatic.
11. Auto draining facility for reservoir tank with separate tanks for used and fresh water.
12. An alarm should be provided to indicate command is over.
13. Auto equalizer of pressure in the chamber for easily opening.
14. Digital temperature and pressure gauges to be provided.
15. Control panel to select cycle setting with LCD display and water level indicator.
16. System should be operated with a high vacuum pump integrated printer for printing of report
17. Should be supplied with a water demineralizer to be connected directly to tab water.
18. Should automatically switch off incase of Low water level
19. Autoclave should execute vacuum test Bowie & Dick Test & Helix Test.

4. System Configuration Accessories, spares and consumables:

1. System as specified-
2. Proper stand, trays (10 nos) and Bin (with lock) 1 be supplied
3. Should provide available spares and consumables for at least 10 years
4. Should provide a sufficient quantity of consumable along with the equipment

5. Environmental factors: Shall meet IEC-60601-1-2 :200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.

6.Power Supply: Power input to be 220-240VAC, 50Hz,/440 V 3 Phase as appropriate and fitted with plug compatible with local sockets

7.Standards and Safety:

1. Comprehensive onsite training for lab staff and support services till familiar with the system.
2. Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450 (BIS)
3. Should be ISI /CE or equivalent standard approved product.

8. Documentation:

1. User/Technical/Maintenance manuals to be supplied
2. Certificate of calibration and inspection from factory.
3. List of important spare parts and accessories with their part number and costing.
4. Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out
5. Should submit a report of quality checks using biological indicator.

Item No. 38

AUTOCLAVE (VERTICAL) – High Pressure

AUTOCLAVE

1. **Sterilizer Type:** Table Top Sterilizer
2. **Capacity:** 20-25 litres
3. **Chamber Size:** The sterilizer should have Rectangular/Cylindrical chamber with suiting the volume for maximum processing capacity per charge.
4. **Quality System Compliance:** Sterilizer should comply the quality systems as per ISO 9001:2000, EN ISO 13485:2003, and ISO 14001:2004.
5. **Quality Assurance:** Sterilizer should be CE or FDA or BIS Certified
6. **Types of Cycles Process:** Table Top Sterilizers should be equipped with B-process as per latest international standards
7. **Chamber:** Should be made of STAINLESS STEEL 316 & should comply the Pressure Equipment Directive (PED) & EN 13445 norms or equivalent
    a. Chamber should have minimum 5 years warranty or should confirm 44-50,000 process minimum life.
    b. Chamber should have working pressure 2.2 bar & design pressure up to 3.8 bar.
    c. Chamber should have Stress & Fatigue analysis reports for material & construction of the pressure vessel.
    d. Chamber should be equipped with electrically heated jacket for preheating on standby mode.
8. **Door Design:** Should have horizontal sliding/Hinged door with silicon elastomer rubber gasket to withstand temperature up to 140°C.
9. **Air Filter:** An disposable air filter should be provided for filtering the atmospheric air before entering inside the chamber. The filter separation efficiency should be higher than 99.998% for particle size less than 0.3µm.
10. **Cycle programs:**
    a. 134°C Wrapped & Unwrapped
    b. 121°C Wrapped & Unwrapped
    c. 134°C Flash/Rapid open instrument cycle.
    d. 134°C Textile.
    e. 134°C Prion.
    f. Test programs : Bowie & Dick, Leak Test, Helix Test
11. **Water Storage Tank:** Sterilizer should have inbuilt water reservoir with storage capacity up to 5 Litres. The water reservoir should have easy access for cleaning & to avoid bio film.
12. **Steam Generator:** Sterilizer should have inbuilt steam generator with warranty of 5 years on heating elements. The steam generator design should be with integrated energy storing system for building up power for sterilization loads in short time.

13. **Control Panel:** The control system should be microprocessor based PLC system specially designed for sterilization applications. The control system should have CPU processor with battery back-up, Digital input/output controls, analogue measuring inputs & COM ports for printer & PC connectivity.
14. **Alarms:** Automatic process checking & failure correction should be possible by the control system. The range of alarm should include Temperature & pressure sensor failure, phase time-out, doors not properly closed, power failure (less than 10 sec should be ignored), continuous self checking of all the safety devices, low water level etc. All the alarms should be audio-visual.
15. **Accessories:** The sterilizer unit should include rack with 3 levels & suitable size instrument trays should be the part of the supply for every sterilizer. The Sterilizer should have water circulation system so that no drain point & fixed water inlets required.
16. **Standards & Norms:** The sterilizer must comply the following standards, ISO 9001:2000 (Quality Systems), ISO 13485:2003 (Quality Systems for Medical Devices), ISO 14001 (Environment Management System)
17. The product should be FDA/CE/BIS/ISI approved.
18. **Electrical Requirements:** 230V, 50 Hz.

All other terms & conditions remain unchanged.

Director, NEIAH
Shillong