



ACU/PS/AIMS/Clsd-Tender/ **03** /2022-23

Date: **05 APR 2022**

RETENDER NOTIFICATION

Adichunchanagiri University is inviting **closed tender** for the supply of *Medical equipment and General instruments* to “Adichunchanagiri Institute of Medical Sciences (AIMS)”, B.G. Nagara, from the competitive firms.

1	Name of the work	Supply of Medical equipment and General instruments to Adichunchanagiri Institute of Medical Sciences
2	Last date for tender submission	On or Before 26.04.2022 up to 05:00 PM

Sl. No.	Name of the Medical Equipment & General Instrument	Provisional Qty. (In No's)
1.	Band saw for sectioning body and limbs	01
2.	Articulated Skeleton set	06
3.	Haemocytometer	18
4.	Sphygmomanometer (Digital display)	50
5.	Algometer	22
6.	Amphibian experiments software	1
7.	Spectrophotometer	1
8.	Spectroscopic adjustable slit	2
9.	Dissection Set complete	4
10.	Autopsy Saw with accessories	2
11.	Cold storage – 4 compartment	1

Note: Kindly send quotes in 2 bid formats (Technical and Financial bids sealed separately inside the main envelope for each individual item or list of items) to be addressed to “**The Registrar, Adichunchanagiri University, B.G. Nagara -571448, Nagamangala (T), Mandya(D)**”.

- Adichunchanagiri University reserves all the rights to accept, reject, incorporate changes and re-tender without giving any reasons.
- The sealed cover must be duly superscripted with the words “ACU/AIMS/Clsd Tendr/ME-GI/Ref no” Or tender details for which company is quoting.





- Attach Brochure, Certification of the product, Bank/account details, PAN, GSTIN and 02 Years of ITR declaration inside the envelope and company contact details with email ID on the main envelope cover for further correspondence.
- Technical Specifications mentioned below are of minimum parameters; Products offered must meet these or exceed all requirements herein.
- Quote for **unit price** with applicable GST (display GST at extra column) and Equipment/Instrument must have a **minimum warranty** of **03 years**.
- For any queries, please write to **registrar@acu.edu.in** or telephone to purchase section **+91 -98458 35834**

Dr. C.K. SubbarayaRegistrar
Adichunchanagiri University
B.G.Nagara-571448

Technical Specifications

1.	Band saw for sectioning body and limbs (Anatomy)
	<p>Description: Instrument used for sectioning of the body</p> <p>Student utility: Essential for training the I MBBS students by taking cross sections of the body at various levels and compare the anatomy with sectional anatomy seen in computerised tomography (CT) or magnetic resonance imaging (MRI) films</p> <p>Specifications: one instrument with following specification required</p> <ul style="list-style-type: none"> • Model name: BS-500 Band Saw Machine • Size/Dimension: 1100 x 750 x 1830 mm • Voltage: 415V / 50 Hz / 3P • Power: 1.5 kw • Machine Weight: 260 kgs • Available Model: BS - 600 • Wheel Diameter: 500 mm • Saw Blade Size: L3560 x W12.5 mm • Saw Blade Speed: 18.8 m/s • Saw Blade Length: 3550 mm • Saw Blade Width: 12.5 ~ 40 mm • Suction Hood Diameter: 95 mm • Accessories required: 10 spare blades
2.	Articulated Skeleton set (Anatomy)
	<p>Description: Articulated Skeleton set</p> <p>Student utility: Essential for training I MBBS students in human osteology</p> <p>Specifications: 6 sets with following specifications required</p> <ul style="list-style-type: none"> • Articulated Skeleton set: Each set should show muscle and ligament attachments in permanent colour (these colours should be present on only one half preferably) • Stand: Should have revolving wheels • Size: 170 cms Tall (Full Human Size) • Material: plastic/fibre



3.	Haemocytometer
	<p>Description: Equipment used to perform blood cell count (RBC, WBC, Platelets).</p> <p>Student utility: Train the student on the method of cell counting</p> <p>Specifications: To include a set of 4 items in a carry case.</p> <ol style="list-style-type: none"> 1. Neubauer's counting chamber (thick glass slide with 2 counting grids, silver coated platforms - German) 2. RBC pipette (with markings 0.5, 1 & 101, red bead, rubber tube with red mouth piece) 3. WBC pipette (with markings 0.5, 1 & 11, white bead, rubber tube with white mouth piece) 4. Cover slips (3-4) 5. Accessories – Carry case.
4.	Sphygmomanometer (Digital display)
	<p>Description: Instrument used to measure blood pressure by indirect method.</p> <p>Student utility: Train the student on the method of recording blood pressure on a patient.</p> <p>Specifications:</p> <p>Type – Aneroid with LED display (analogue to digital transducing)</p> <p>Contents – Arm cuff (adult size) with detachable rubber tube connecting to the pressure gauge & another rubber tube connecting to a rubber bulb (with one-way valve at one end of bulb & another bi-directional valve with option to open and close)</p> <p>Display – Digital (LED)</p> <p>Max measuring capacity – up to 300 units</p> <p>Pressure measurement units – mm of Hg</p> <p>Pressure division value – 2 mm of Hg.</p> <p>Accuracy - +/- 0.5 %</p> <p>Certification – CE compliant</p> <p>Accessories – Carry case.</p>



5.	Algometer
	<p>Description: Instrument used to measure pressure threshold & pain tolerance based on the amount of force applied.</p> <p>Student / Patient utility: Train the student on the method of testing for sensations of pressure & pain; a reliable measure of pain in muscle, joints, ligaments & tendons (example: fibromyalgia)</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Display – Dial type (analog) • Load capacity – up to 20 kg • Load measurement units – Kgs (preferably) / lbs • Load division value – 100 gm. • Accuracy - +/- 0.5 % • Certification – CE compliant • Accessories – Carry case.
6.	Amphibian experiments software
	<p>Description: Software to demonstrate amphibian nerve – muscle & heart experiments.</p> <p>Student utility: Demonstrate the student on the method of documenting the various properties of nerves & muscles, heart.</p> <p>Specifications:</p> <ol style="list-style-type: none"> 1. To have videos of all amphibian nerve-muscle & heart experiments with necessary set-up. 2. To have animations of the recordings made during the above experiments. 3. To have simulation option for students to select / modify the conditions in the experimental set-up. 4. To have a renewal option for software. 5. Compatible with Windows 98 and above versions of OS. 6. To have option for installing in multiple systems. <p>Service terms:</p> <p>To provide on-site service as and when required.</p>





7.	Spectrophotometer
	<p>UV Spectrophotometer specification</p> <p>Optical system Double beam with sample and reference cell holder Light sources: Halogen lamp, deuterium long</p> <p>Wavelength range: 190nm to 1100nm</p> <p>Wavelength accuracy:</p> <ul style="list-style-type: none"> • $\pm 0.1\text{nm}$ at D2 peak 656.1nm, • $\pm 0.3\text{nm}$ for entire range <p>Wavelength repeatability: $\pm 0.1\text{nm}$</p> <p>Spectral bandwidth (SBW)</p> <p>UV visible:</p> <ul style="list-style-type: none"> • 0.1, 0.2, 0.5, 1, 2, 5, 10 nm • L2, L5, L10 nm (low stray light mode) • M1, M2 nm (micro cell mode) <p>Wavelength scanning speed:</p> <ul style="list-style-type: none"> • 3000 to 2nm/min • 29000 nm/min when survey scanning <p>Stray light:</p> <ul style="list-style-type: none"> • Less than 0.02% at 220 nm (NaI 10 g/L aqueous solution) • Less than 0.02% at 340 nm (NaNO₂ 50g/L aqueous solution) • Less than 0.5% at 198nm (KCl 12 g/L aqueous solution) <p>Photometric range</p> <ul style="list-style-type: none"> • Absorbance: -4 to 4 Abs • Transmittance: 0% to 400% <p>Photometric accuracy:</p> <ul style="list-style-type: none"> • ± 0.002 Abs at 0.5 Abs • ± 0.004 Abs at 1.0 Abs • ± 0.006 Abs at 2.0 Abs <p>Photometric repeatability:</p> <ul style="list-style-type: none"> • ± 0.0002 Abs at 0.5 Abs • ± 0.0002 Abs at 1 Abs • ± 0.001 Abs at 2Abs <p>Baseline stability:</p> <ul style="list-style-type: none"> • Less than 0.0003Abs/Hr (700nm, one hour after light source turned ON)





- Baseline flatness:
- Less than ± 0.0006 Abs (1,100 to 190nm, one hour after light source turned ON)
- Noise level:
- Less than 0.00005 Abs (700nm)
- Light source:
- 20-W halogen lamp and deuterium lamp (Built in light source auto position adjustment)

Monochromator:

- Lo-Ray-Ligh® grade blazed holographic grating in Czerny Turner mounting

Detector:

- Silicon photodiode/ photomultiplier tube

Cuvettes: 1 ml to 3.5 ml (Quartz), Additional pair of cuvette to be provided

Standard Spectrum mode

- Abs, T% T meter, Quantitative analysis, Spectrum measurement
- Time course measurement, Fixed wavelength measurement, Validation, Daily check
- wavelength time course measurement
- **Photometric mode: Single wavelength, Multiple wavelength measurement**
- **Quantitation mode**
- **Kinetic mode**
- **PC compatibility: should be available**

Display:

- HDD flat screen and Color touch screen
- Standard Touch pen
- Touch panel protective sheet (optional)

8. Spectroscopic adjustable slit

The adjustable slit is used in all optical experiments where a continuously and reproducibly variable slit is required, particularly for diffraction and interference experiments and for spectral analysis.

Safety note

Impurities (e.g. grains of dust) adhering to the slit edges can cause undesirable diffraction effects; do not remove these using a metal object; use moist, lint-free paper or a fine moistened brush. Always loosen screw 4 before realigning the slit.

Description, technical data

1. Slit with chamfered edges: Width: 0 to approx. 2.5 mm, continually adjustable



Height: 20 mm

2. Lever for adjusting the slit width
3. Slit holder, rotatable by 360° in frame 6
4. Arresting screw for slit holder 3
5. Scale with index mark to indicate the slit width Graduation: 0 to 1.6 mm with 0.2 mm divisions
6. Accuracy: 0,02 mm
7. Frame (dia. 13 cm) on rod (8 cm x 1 cm diam.)

Operation

Set up the apparatus in the experiment arrangement so that the bevelled edges of the slit face the light source and the light beam is perpendicularly incident on the slit.

To optimally utilize the light, align the slit and the lamp filament parallel to each other. If necessary, loosen screw 4 and turn holder 3; remember to retighten the screw.

Rough adjustment of the experiment setup is best carried out when the slit is opened wide. Set the slit to the desired width using lever 2 before fine adjustment of the setup.

9. Dissection Set -complete

Name, Category And Coding

UMDNS Name Amputation Saw, Bowel Surgical Scissors, Post Mortem Scissors, Chisel, Detachable Cross Handle Chisel, Brain Knife, Cartilage Knife

UMDNS Code(S) 13922,14250,14181,14055,21023,19816, 19818

1. GENERAL USE-

Clinical Purpose Post mortem instruments for autopsy surgeon pathologists providing the examination of corpses during autopsy. Below list of instruments are for single autopsy table.

2. TECHNICAL

List of instruments:

- Amputation Saw 12" -1 Quantity
- Bowel Scissors 7" 1 4 Quantity
- Post Mortem Scissors 6" 1 4 Quantity
- Blow Pipe straight 8" 2 Quantity
- Hammer with chisel 8" 1 Quantity
- Detachable Cross handle chisel 3.5" 1 Quantity



- Skull Rest 7" 1 Quantity
- Brain Knife 9.5" 1 Quantity
- Caltin Knife 9.5" 1 Quantity
- Cartilage Knife 7.5" 1 Quantity
- Scalpel 16" 4 Quantity
- Dissecting Forceps 6" 1 Quantity
- Chain hook set of 3, 3" 1 Quantity
- Scalpel Handle 127 mm 1 Quantity
- Organ knife and saw 22mm blade 1 Quantity
- Bistoury Knife 70mm blade 1 Quantity
- Rib Knife 1 Quantity
- Pelvic Organ Knife 1 Quantity
- Dissection scissors 1 Quantity
- Bone cutting scissors 1 Quantity
- Needle Holder 1 Quantity
- Raspatory 1 Quantity
- Retractor 2 Quantity
- Osteotome 2 Quantity
- Vagotome 1 Quantity
- Surgical needles 12 Quantity
- Folding rulers 300 mm 2 Quantity
- Probes with eye/fish tail 2 Quantity
- Measuring/specimen jar (100 ml and 1 Litre) 1 Quantity
- Rib Shears
- Magnifying lens 1 Quantity
- Box Containing all these instruments 1 PC

- User's interface NA All knives should have stainless steel handle and surgical quality.

3. PHYSICAL CHARACTERISTICS

- 3.1 Dimensions(metric): As specified in IS/ISO standards.
- 3.2 Weight (lbs, kg) NA As specified in IS/ISO standards.
- 3.3 Noise (in dBA) Zero

- 3.4 Heat dissipation Zero
- 3.5 Mobility, portability- Portable

4. ENERGY SOURCE (electricity, UPS, solar, gas, water, CO2)

- 4.1 Power requirements -- Zero
- 4.2 Battery operated- Zero
- 4.3 Protection Not required.
- 4.4 Power consumption- Zero

5. ACCESSORIES, SPARE PARTS, CONSUMABLES

- 5.1 Accessories, (mandatory, standard, optional);
- Spare parts (main ones); Consumables/reagents (open, closed system)
- Protective SS 304 case for clean storage and safe transport.

6. ENVIRONMENTAL AND DEPARTMENTAL CONSIDERATIONS

- 6.1 Atmosphere/Ambience (air conditioning, humidity, dust...)
 - Capable of working in 50-100% humid condition and in temperature range of 5-40 degree Celsius.
- 6.2 User's care, Cleaning, Disinfection & Sterility issues
 - 1. Disinfection: Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover.
 - 2. Should be compatible with Medical grade disinfectant solutions like Cidex or hydrogen peroxide solution.

7. STANDARDS AND SAFETY

- 7.1 Certificates (premarket, sanitary,); Performance and safety standards (specific to the device type); Local and/or international
 - 1. The surgical instruments should be made using top quality medical grade hardened stainless steel with defined specifications like IS 5589, IS 10414, IS6989, IS6990, IS6996, IS 3318 IS3320, IS 6442 etc.
 - 2. History of adverse events and actions (Recall/Filed safety correction etc) taken by manufacturer on the product should be made available to procurer. Such

Information (as and when happen) after commission of product should be continued to be provided to purchaser till manufacturing of same type product is curtailed.

8. TRAINING AND INSTALLATION

8.1 Pre- installation requirements: nature, values, quality, tolerance Not required

8.2 Requirements for sign-off Compliance with quantity checklist, Quality check of the product.

8.3 Training of staff (medical, paramedical, technicians)

Hands on training to be provided to healthcare professional on using post mortem equipment set, day to day maintenance/cleaning.

9. WARRANTY AND MAINTENANCE

Warranty 3 years, including all spares. or State/UT may also include the medical devices in NHM Biomedical Equipment management and maintenance program.

10. DOCUMENTATION

10.1 Operating manuals, set manuals, other manuals One copy (hardcopy and softcopy) to be provided on user manual/operating manual and service/Technical manual

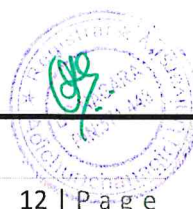
10.2 Other accompanying documents Certification Documents implying compliance to standards.

11. Notes

11.1 Service Support, Contact details (Hierarchy Wise; including a toll free/landline number)

- Contact details of manufacturer, supplier and local service agent to be provided;
- Any Contract (AMC/CMC/add-hoc) rate available to be declared by the manufacturer.
- Purchaser may engage third party for maintenance of equipment and vendor needs to comply in all terms.
- Manufacture/Supplier of medical devices should provide price quote for spare part of medical device or supply item, against requisition/Purchase order from biomedical engineers/technicians.

	11.2 Recommendations or warnings Any warning sign would be adequately displayed on each instrument.
10.	Autopsy Saw with accessories
	<p>The Mopec 810 (Stryker) Autopsy saw remains as the industry standard in anatomic pathology. High speed oscillating action quickly cuts through bone with minimal damage to soft tissue. Used for removing the cranial cap, making linear cuts or sectioning small bone specimens.</p> <p><u>Construction</u></p> <ul style="list-style-type: none"> • Cast aluminium housing • Arbor-mounted blades • 10-foot cord with hospital grade plug • Powerful 17,000 RPM motor produces 32,000 oscillations per minute • Familiar lightweight & ergonomic design • Slender handle for precise control <p><u>Materials</u></p> <ul style="list-style-type: none"> • Armature, field coil, cord, plugs, switches, bearings, carbon brushes, gaskets, cam, shaft, shaft link. <p><u>Dimensions/Weight</u></p> <ul style="list-style-type: none"> • Shipping Dimensions 6.5 x 18.5 x 5.5 • Weight with power cord 3.7 lbs • Shipping weight: 4.2 lbs <p><u>Capacity</u></p> <ul style="list-style-type: none"> • 32,000 oscillations per minute <p><u>Utilities</u></p> <ul style="list-style-type: none"> • Voltage: 115V/60Hz/1PH <p><u>Included Options/Accessories</u></p> <ul style="list-style-type: none"> • Blades: BD101 Large Section Blade • Additional Tools: Allen wrench <p><u>AUTOPSY SAWS & BLADES</u></p>





	<ul style="list-style-type: none"> Mopec 810 Autopsy Saw Replacement Blades Mopec Part # Purpose/Description Stryker Part # Cut Edge x Cut Depth BD101 Large Section Blade 1100 3.70" x 0.98" BD104 Round Blade 1119 2.56" x 0.85" BD105 Spinal Column Blade 1105 3.79" x 1.64" BD108 Small Section Blade 1101 2.16" x 0.61" BD110 Paediatric Blade 1106 0.79" x 1.62" BD111 Deep Cutting Mastoid 1106A 0.8
11.	Cold storage – 4 Compartment
	<ul style="list-style-type: none"> Number of bodies storage – 4 Temperature range - 2°C to 8°C Temperature control - Digital microprocessor Temperature display - LED display Construction - 304 Stainless Steel/GPS/MS Insulation - High pride polyurethane Doors - Made of steel sheets with magnetic gasket & external lock Tray material - Stainless Steel SS 304 Tray dimension - 608 x 75 x 2182 (H x D x L) mm Trolleys - Made of steel and sliding on telescopic rails Compressor - Reciprocating type Evaporation - Internal evaporator system forced draught Internal drainage – Yes Refrigeration system - Air cooled hermetically sealed Air circulation - Forced air circulation Alarm - High/low visual alarm system Internal lighting - Waterproof CFL lamps Locking system - Stranded key locks Power supply - 1 phase/220 Volts/50 Hz

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