



PROJECT TITLE:

PURCHASE OF ASSORTED LABORATORY EQUIPMENT AND INSTRUMENTS

1. SCOPE OF CONTRACT

The scope shall cover the supply, delivery, installation and testing of Laboratory Equipment, Glassware, Reagents, Instruments, Office Equipment and Supplies to **General Santos City Water Laboratory and Research Center** located at MSU Compound, Brgy. Tambler, General Santos City.

2. TECHNICAL SPECIFICATIONS

List of Equipments:

DISPENSEPETTE/ BOTTLE TOP MEDIA DISPENSER	<ul style="list-style-type: none"> • 1 – 10mL • 10 – 100 mL • Vapor pressure max. 500 mbar • Viscosity max. 500 mm²/s • Temperature max. 40°C • Density max. 2.2 g/cm³ • Accuracy: ±0.5%, precision ±0.1%
DISTILLING APPARATUS/ WATER PURIFIER	<ul style="list-style-type: none"> • Flow rate 12L/Hr • Reverse osmosis and deionization cartridge • Optional UV Lamp • Separate storage • Control: microprocessor • Mounting: Bench/ wall
EMERGENCY EYEWASH AND SHOWER STATION	Emergency Shower <ul style="list-style-type: none"> • Pattern of water with a diameter of at least 50.8 cm (20 inches) at 152.4 cm (60 inches) • Shower head be between 208.3 and 243.8 cm (82-96 inches) from the floor • Minimum volume of spray should be 75.7 litres/minute (20 gallons/minute) for a minimum time of 15 minutes. • Activated in less than 1 second • Height: 82-96 inches



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	<p>Eyewash</p> <ul style="list-style-type: none"> • Deliver fluid to both eyes simultaneously at a volume of not less than 1.5 litres/minute (0.4 gallons/minute) for 15 minutes. • Unit should be between 83.8 and 134.6 cm (33 to 53 inches) from the floor.
<p>HYGROMETER</p>	<ul style="list-style-type: none"> • Temperature: -10°C to 50°C • Humidity: 10%RH to 90%RH • Clock: 12/24 hours, with alarm function • Power: 1.5V AAA single • Dimensions (WxLxT): 101x108x23 mm • Weight: 130 g (with battery)
<p>MICROSCOPE</p>	<ul style="list-style-type: none"> • Eyepieces Eyepiece (10x) Fiel Number (F.N.): 20 (anti-fungus) • Theory: Biological Microscope • Fine Adjustment Range Fine focus graduation: 2.5 I m • Focal Distance Focusing: Stage height movement (coarse movement stroke 20 mm) Fine focus graduation: 2.5 A m Meter (m) • Light Source: Halogen • Focus Range: 48-75 Millimeter (mm) • Dimensions: 154x238x391 (LxWxH) Millimeter (mm) • Eyepiece Tube Observation Tube 30A inclined binocular tube Interpupillary distance adjustment range 48a 75 mm • Drawtube Binocular • View Head Seidentopf observation head for individual choice of adjustment • Objective Achromatic: 4x, 10x, 40x, 100x • Interpupillary Distance: 48-75 Millimeter (mm) Eyepieces • Eyepiece (10x) Field Number (F.N.): 20 (anti-fungus) • Focusing: Stage height movement (coarse movement stroke 20 mm) Fine focus graduation: 2.5 A m Meter (m) • Illumination System: Built-in transmitted illumination system 6 V 20 W halogen bulb 100-240 V 50/60 Hz universal voltage • Coarse Adjustment Range: Coarse movement stroke 20 mm • Image Format: Optional Accessories: Micro image projection system



	<ul style="list-style-type: none"> • Working Stage: Wire movement mechanical fixed stage: 120x132 mm Travelling Range: 76 mm (X) x 30 mm (Y) Single specimen holder Square Centimeter (cm²) Condenser: Abbe type with aperture iris diaphragm N.A.: 1.25
pH METER	<ul style="list-style-type: none"> • Ph: -2.00 bis +20.00 Readability: 0.01 Accuracy: ± 0.01 mV -1800.0 to 1800.0 • mV: Readability 0.1 mV Accuracy ± 0.2 mV (0.05% if + 400 mV) • Temperature Range -5.0 to +105.0°C Readability 0.1°C Accuracy ± 0.2°C • Calibration points Maximum 3 buffers • Automatic buffer recognition 16 buffers 2; 4; 7; 10; 12 1; 3; 6; 8; 10; 13 1.68; 4.0; 6.86; 9.18; 12.46 • Automatic temperature compensation • Automatic electrode slope correction between 90-105% of the theoretical slope Bench type
PISTON STROKE PIPET	<ul style="list-style-type: none"> • 1 ml (0.1ml increment) • 1-10 ml (0.1ml increment) • 10 ml (fixed)
ULTRAVIOLET GERMICIDAL LAMPS	<ul style="list-style-type: none"> • 254 NM
VORTEX MIXER	<ul style="list-style-type: none"> • Speed control: 20 – 3000rpm • Dimensions: 130 x 155 x 155 mm • Power: 220 VAC, 50/60 Hz • Weight: 3.1 kg
WATER ANALYSIS MULTI PARAMETER QUALITY MONITORING INSTRUMENT	<ul style="list-style-type: none"> • Parameters: Ph, DO, Temperature, TDS, salinity, conductivity • Bench top • With calibration buffer



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3. SPECIAL PROVISION

- a. The supplier shall provide warranty period and shall commence from the date of final acceptance and installation of the unit.
- b. The unit shall be supplied, delivered, installed and tested to the designated area of the laboratory within the period of thirty (30) calendar days from receipt of Purchase Order (PO).

TECHNICAL WORKING GROUP FOR LABORATORY EQUIPMENT AND INSTRUMENTS

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