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## BID BULLETIN

PhilGEPS Reference No.: **8133757**

Solicitation: **PR-21-06-200**

Project Name: **Supply and Delivery of Various Laboratory Equipment for the NICER Project**  
(ABC: Php. 3,870,000.00)

After the Pre-Bid Conference held November 5, 2021, Friday 2:00 PM at the BAC Office, Western Mindanao State University, Normal Road, Zamboanga City, the following changes/clarifications has been agreed upon the bidders, the end-user, the TWG and BAC members;

### A. CHANGES/CLARIFICATIONS:

FROM	TO
Item #1 <b>1 Set MICROPIPETTE SET</b> Specification: * Single -channel micropipette * 1 unit each for: 0.2-2ul, 2-20ul,20-200ul and 100-1000ul * With micropipette stand * Comes with pipette tips 100pcs/pack for all units * Autoclavable * 0.2 - 2ul - 100 pcs/pack * 2 - 20 ul - 100 pcs/pack * 20 - 2000 ul - 100 pcs/packs * 100 - 1000 ul - 100 pcs/pack	<b>1 Set MICROPIPETTE SET</b> Specification: * Single -channel micropipette * 1 unit each for: 0.2-2ul, 2-20ul,20-200ul and 100-1000ul * With micropipette stand * Comes with pipette tips 100pcs/pack for all units * Autoclavable * 0.2 - 2ul - 100 pcs/pack * 2 - 20 ul - 100 pcs/pack * <b>20 - 200 ul - 100 pcs/packs</b> * 100 - 1000 ul - 100 pcs/pack

Item #2

**1 Set ROTARY EVAPORATOR SET**

Inclusions: #1,2 & 3 - must be same brand or manufacturer

- 1.) 1 unit Rotary Evaporator  
1 unit Digital Heating Bath  
1 unit Glassware Set
- 2.) 1 Vacuum Pump/Regulator
- 3.) 1 unit Recirculating Cooler
- 4.) 1 unit 3Kva UPS

Specifications:

1.1 Rotary Evaporator

- \* Type of Cooling: Vertical
- \* Cooling Surface: 1500 cm<sup>2</sup>
- \* Speed Range: 5-300 rpm
- \* Speed Tolerance Set Rotation Speed <100rpm: 1 ±rpm
- \* Speed Tolerance Set Rotation Speed >100rpm: 1 ±%
- \* Lift: Manual
- \* Heating Temperature Range: up to 180 oC
- \* Set Temperature Resolution: up to 1 ± K
- \* Filling Volume max.: 4 L
- \* Permissible Ambient Temperature: 5 - 40 oC
- \* Permissible Relative Moisture: 80%
- \* Voltage: 100-240 V
- \* Frequency: 50/60 H
- \* Power Input: 1500W

1.2 Digital Heating Bath

- \* Bath Volume: 4 L
- \* Max. Media Temperature: 180oC
- \* With Permanent Set-Point/ Actual Temperature Display, with USB Interface

1.3 Glassware Set

- \* Contains a Vertical Condenser for all Standard Distillations, Compact
- \* The solvent to be Distilled can be Continuously fed in through the PTFE Inlet Tube
- \* Has at least a Condenser, Evaporator Flask and Receiving Flask

2. Vacuum Pump/Regulator

- \* Pump Rate max. (50/60Hz): 28.3 L/min
- \* Final Pressure without Gas Ballast: 7 mbar
- \* Final Pressure with Gas Ballast: 15 mbar
- \* Suction Levels: 2
- \* Cylinder: 2
- \* Connection Diameter Suction Side: 10 mm
- \* Connection Diameter Pressure Side: 10 mm
- \* Gas Ballast Valve: yes
- \* Input Pressure: 7-1050 mbar
- \* Speed (60Hz): 1680 rpm
- \* Noise at Low. Pressure: 65 dB(A)
- \* Mode: Automatic and Manual

**1 Set ROTARY EVAPORATOR SET**

Inclusions: #1,2 & 3 - must be same brand or manufacturer

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Specifications:

1.1 Rotary Evaporator

- \* Type of Cooling: Vertical
- \* Cooling Surface: 1500 cm<sup>2</sup>
- \* Speed Range: 5-300 rpm
- \* Speed Tolerance Set Rotation Speed <100rpm: 1 ±rpm
- \* Speed Tolerance Set Rotation Speed >100rpm: 1 ±%
- \* Lift: Manual
- \* **Heating Temperature Range: 20 to 180 oC**
- \* Set Temperature Resolution: up to 1 ± K
- \* Filling Volume max.: 4 L
- \* Permissible Ambient Temperature: 5 - 40 oC
- \* Permissible Relative Moisture: 80%
- \* Voltage: 100-240 V
- \* Frequency: 50/60 H
- \* Power Input: 1500W

1.2 Digital Heating Bath

- \* Bath Volume: 4 L
- \* Max. Media Temperature: 180oC
- \* With Permanent Set-Point/ Actual Temperature Display, with USB Interface

1.3 Glassware Set

- \* Contains a Vertical Condenser for all Standard Distillations, Compact
- \* The solvent to be Distilled can be Continuously fed in through the PTFE Inlet Tube
- \* Has at least a Condenser, Evaporator Flask and Receiving Flask

2. Vacuum Pump/Regulator

- \* Pump Rate max. (50/60Hz): 28.3 L/min
- \* **Final Pressure without Gas Ballast: up to 7 mbar**
- \* **Final Pressure with Gas Ballast: up to 15 mbar**
- \* Suction Levels: 2
- \* Cylinder: 2
- \* Connection Diameter Suction Side: 10 mm
- \* Connection Diameter Pressure Side: 10 mm
- \* Gas Ballast Valve: yes
- \* Input Pressure: 7-1050 mbar
- \* Speed (60Hz): 1680 rpm
- \* Noise at Low. Pressure: 65 dB(A)
- \* Mode: Automatic and Manual

<ul style="list-style-type: none"> <li>* Protection Class According to DIN EN 6059: IP 54</li> <li>* Voltage: 230/115/100 V</li> <li>* Frequency: 60/60 Hz</li> <li>* Power Input: 180 W</li> <li>3. Recirculating Cooler <ul style="list-style-type: none"> <li>* Temperature Stability (oC): ±0.5</li> <li>* Temperature Control: PID Temperature Control</li> <li>* Setting/Display Resolution: LED</li> <li>* Pump Capacity Flow Rate : 15 l/min</li> <li>* Pump Capacity Flow Pressure : 0.35 bar</li> <li>* Pump Connections: M10x1</li> <li>* Barbed Fittings Dia. (inner dia./mm): 8/10</li> <li>* Filling Volume (liters): 1.7 to 2.6</li> <li>* Filling Volume Refrigerant Stage 1 (g): 113</li> <li>* Global Warming Potential for R134a: 1430</li> <li>* Carbon Dioxide Equivalent Stage 1 (t): 0.162</li> <li>* Ambient Temperature: 5 to 40 oC</li> <li>* Sound Pressure Level (distance 1 m) max. (dBA): 59</li> </ul> </li> <li>4. 1 unit - 3 kVA UPS <ul style="list-style-type: none"> <li>* Included with each unit: <ul style="list-style-type: none"> <li>~ 2 each Barbed fittings for tubing 8 and 10 mm inner dia. (pump connections M10x1 male)</li> <li>~ Cooling of Compressor: Air</li> </ul> </li> </ul> </li> </ul> <p>* WITH ON SITE TRAINING</p>	<ul style="list-style-type: none"> <li>* Protection Class According to DIN EN 6059: IP 54</li> <li>* Voltage: 230/115/100 V</li> <li>* Frequency: 60/60 Hz</li> <li>* Power Input: 180 W</li> <li>3. Recirculating Cooler <ul style="list-style-type: none"> <li>* Temperature Stability (oC): ±0.5</li> <li>* Temperature Control: PID Temperature Control</li> <li>* Setting/Display Resolution: LED</li> <li>* <b>Pump Capacity Flow Rate : up to 15 l/min</b></li> <li>* <b>Pump Capacity Flow Pressure : at least 0.35 bar</b></li> <li>* Pump Connections: M10x1</li> <li>* Barbed Fittings Dia. (inner dia./mm): 8/10</li> <li>* <b>Filling Volume (liters): at least 1.7</b></li> <li>* Filling Volume Refrigerant Stage 1 (g): 113</li> <li>* Global Warming Potential for R134a: 1430</li> <li>* Carbon Dioxide Equivalent Stage 1 (t): 0.162</li> <li>* Ambient Temperature: 5 to 40 oC</li> <li>* Sound Pressure Level (distance 1 m) max. (dBA): 59</li> </ul> </li> <li>4. 1 unit - 3 kVA UPS <ul style="list-style-type: none"> <li>* Included with each unit: <ul style="list-style-type: none"> <li>~ 2 each Barbed fittings for tubing 8 and 10 mm inner dia. (pump connections M10x1 male)</li> </ul> </li> </ul> </li> </ul> <p>* WITH ON SITE TRAINING</p>
<p>Item #3</p> <p><b>1 Unit VORTEX MIXER</b></p> <p>Specifications:</p> <ul style="list-style-type: none"> <li>* Orbit range: 4mm</li> <li>* Speed Range: 0-3000rpm</li> <li>* Temp. Resist: 50C - 400C</li> <li>* Wattage: 35W</li> <li>* Power: 220V/60Hz</li> <li>* Modes of activation: Touch and Continuous mode</li> <li>* Note: with rubber feet (shock -absorber system to prevent it from moving)</li> </ul> <p>* WITH ON SITE TRAINING</p>	<p><b>1 Unit VORTEX MIXER</b></p> <p>Specifications:</p> <ul style="list-style-type: none"> <li>* Orbit range: 4mm</li> <li>* Speed Range: 0-3000rpm</li> <li>* Temp. Resist: 50C - 400C</li> <li>* Wattage: 35W</li> <li>* Power: 220V/60Hz</li> <li>* Modes of activation: Touch and Continuous mode</li> <li>* Note: with rubber feet (shock -absorber system to prevent it from moving)</li> </ul> <p>* <b>WITH TRAINING</b></p>
<p>Item #4</p> <p><b>1 Unit MICROCENTRIFUGE</b></p> <p>Specifications:</p> <ul style="list-style-type: none"> <li>* Max Speed: 14800rpm</li> <li>* Max-g-force:16,163 xg</li> <li>* Speed Control: ±50 rpm</li> <li>* Time Run: 10 sec to 99 min, 59 sec in one-second increment</li> <li>* Noise Level at Max Speed: &lt;60 dB</li> <li>* Max. Capacity Volume: 24 x 1.5/2.0ml</li> <li>* Max Heat Dissipation into Room: 90W (324 Btu/hr)</li> <li>* Ambient Temperature Range: 40C to +400C</li> <li>* Humidity Restrictions: &lt;80% (non-condensing)</li> </ul>	<p><b>1 Unit MICROCENTRIFUGE</b></p> <p>Specifications:</p> <ul style="list-style-type: none"> <li>* Max Speed: 14800rpm</li> <li>* Max-g-force:16,163 xg</li> <li>* Speed Control: ±50 rpm</li> <li>* Time Run: 10 sec to 99 min, 59 sec in one-second increment</li> <li>* Noise Level at Max Speed: &lt;60 dB</li> <li>* Max. Capacity Volume: 24 x 1.5/2.0ml</li> <li>* Max Heat Dissipation into Room: 90W (324 Btu/hr)</li> <li>* Ambient Temperature Range: 40C to +400C</li> </ul>

<ul style="list-style-type: none"> <li>* Power Requirements: 220V/60Hz</li> <li>* WITH ON SITE TRAINING</li> </ul>	<ul style="list-style-type: none"> <li>* Humidity Restrictions: &lt;80% (non-condensing)</li> <li>* Power Requirements: 220V/60Hz</li> <li>* WITH TRAINING</li> </ul>
<p>Item #5</p> <p><b>HORIZONTAL GEL ELECTROPHORESIS SYSTEM SET</b> (must be same brand or manufacturer)</p> <p>* Inclusions:</p> <ul style="list-style-type: none"> <li>a. 1 unit Gel Electrophoresis</li> <li>b. 1 unit Gel Electrophoresis Power Supply</li> </ul> <p>Specifications:</p> <p>a. GEL ELECTROPHORESIS</p> <ul style="list-style-type: none"> <li>* Gel Dimension (WxL) Corresponding Gel Tray: 10 x 7 cm</li> <li>* Unit Dimensions: (WxLxH): 12.5 x 22 x 9cm</li> <li>* Maximum Sample Capacity: 50 samples</li> <li>* Buffer Volume: 300ml</li> <li>* Combs: 2 x 16 sample combs</li> <li>* Buffer Recirculation: No</li> <li>* Plug and Go Casting Dams Supplied: 1 pair</li> <li>* Tray Capacity: 1 tray</li> <li>* Typical Running Conditions: 90V, 45-60 minutes</li> <li>* Bromophenol Blue Migration: 4-5cm/h at 90V</li> </ul> <p>b. GEL ELECTROPHORESIS POWER SUPPLY</p> <ul style="list-style-type: none"> <li>* Unit Dimensions: 21.5 x 33.5 x 10.4 cm</li> <li>* Construction: Frame retardant ABS faceplate</li> <li>* Timer: 1-999 mins</li> <li>* Resolution: 1V, 1mA</li> <li>* Input Voltage: 100-240V; 47-60Hz, 200W</li> <li>* Operating Temperature: 40C to +400C</li> <li>* Operating Environment: + or - 95% RH</li> <li>* Display: 2.4" TFT</li> <li>* Controller: Microprocessor</li> <li>* Maximum Voltage: 300V</li> <li>* Maximum Current: 700mA</li> <li>* Maximum Power: 150 W</li> <li>* Number of Output Pairs: 5</li> <li>* Operating Modes: Constant Parameter, Programmable 6 step</li> <li>* Programmed, Pre-programmed Settings</li> <li>* Output Diameter: 4mm</li> </ul> <p>* WITH ON SITE TRAINING</p>	<p><b>HORIZONTAL GEL ELECTROPHORESIS SYSTEM SET</b> (must be same brand or manufacturer)</p> <p>* Inclusions:</p> <ul style="list-style-type: none"> <li>a. 1 unit Gel Electrophoresis</li> <li>b. 1 unit Gel Electrophoresis Power Supply</li> </ul> <p>Specifications:</p> <p>a. GEL ELECTROPHORESIS</p> <ul style="list-style-type: none"> <li>* Gel Dimension (WxL) Corresponding Gel Tray: 10 x 7 cm</li> <li>* Unit Dimensions: (WxLxH): 12.5 x 22 x 9cm</li> <li>* Maximum Sample Capacity: 50 samples</li> <li>* Buffer Volume: 300ml</li> <li>* Combs: 2 x 16 sample combs</li> <li>* Buffer Recirculation: No</li> <li>* Plug and Go Casting Dams Supplied: 1 pair</li> <li>* Tray Capacity: 1 tray</li> <li>* Typical Running Conditions: 90V, 45-60 minutes</li> <li>* Bromophenol Blue Migration: 4-5cm/h at 90V</li> </ul> <p>b. GEL ELECTROPHORESIS POWER SUPPLY</p> <ul style="list-style-type: none"> <li>* Unit Dimensions: 21.5 x 33.5 x 10.4 cm</li> <li>* Construction: Frame retardant ABS faceplate</li> <li>* Timer: 1-999 mins</li> <li>* Resolution: 1V, 1mA</li> <li>* Input Voltage: 100-240V; 47-60Hz, 200W</li> <li>* Operating Temperature: 40C to +400C</li> <li>* Operating Environment: + or - 95% RH</li> <li>* Display: 2.4" TFT</li> <li>* Controller: Microprocessor</li> <li>* Maximum Voltage: 300V</li> <li>* Maximum Current: 700mA</li> <li>* Maximum Power: 150 W</li> <li>* Number of Output Pairs: 5</li> <li>* Operating Modes: Constant Parameter, Programmable 6 step</li> <li>* Programmed, Pre-programmed Settings</li> <li>* Output Diameter: 4mm</li> </ul> <p>* WITH TRAINING</p>
<p>Item #6</p> <p><b>GEL DOCUMENTATION SYSTEM SET</b></p> <p>* Inclusions:</p> <ul style="list-style-type: none"> <li>a. 1 unit Gel Documentation System</li> <li>b. 1 unit Thermal Cycler (Gradient PCR)</li> <li>c. 1 unit UV-Pad</li> <li>d. 1 unit computer set</li> <li>e. 1 unit 3KVA UPS</li> </ul>	<p><b>GEL DOCUMENTATION SYSTEM SET</b></p> <p>* Inclusions:</p> <ul style="list-style-type: none"> <li>a. 1 unit Gel Documentation System</li> <li>b. 1 unit Thermal Cycler (Gradient PCR)</li> <li>c. 1 unit UV-Pad</li> <li>d. 1 unit computer set</li> <li>e. 1 unit 3KVA UPS</li> </ul>

<p>Specifications:</p> <p>a. 1 unit - GEL DOCUMENTATION SYSTEM</p> <ul style="list-style-type: none"> <li>* Dimensions: (WxDxH) 47.5 x 38.0 x 71.5 cm</li> <li>* Field View: 26 x 21 cm</li> <li>* Camera Resolution: 5 megapixels up to 20 megapixels with auto-exposure, Auto-focus and Auto-lighting technology</li> <li>* Display: 12.6 touch screen</li> <li>* Connection: USB3 Connection-16-bit-65.536 grey levels</li> <li>* Operating Humidity: &lt;95% noncondensing</li> </ul> <p>Hardware:</p> <ul style="list-style-type: none"> <li>* Software control of the lighting</li> <li>* White light LED panels with automatic intensity adjustment</li> <li>* UV cut-off filter and 10 positions filter wheel</li> <li>* Slide-out Pad Box with automatic recognition of the Application Pad inserted</li> <li>* Made of Steel and with stainless steel darkroom for long lasting robustness. Has wide access door with UV safety shut-off</li> </ul> <p>b. 1 unit - THERMAL CYCLER (Gradient PCR)</p> <ul style="list-style-type: none"> <li>* Sample Capacity: 96.0.2ml; 12.8 strips</li> <li>* Temp. Range: 4-1050C (min resolution 0.10C)</li> <li>* Max. Heating Rate: 60C/sec</li> <li>* Max. Cooling Rate: 5.50C/sec</li> <li>* Temp. Uniformity: + or - 0.20C</li> <li>* Temp. Accuracy:+ or - 0.20C (30s after reaching 55, 72 and 350C respectively)</li> <li>* Hot-Lid Temperature Range: 30-1100C</li> <li>* Max. Cycles: + or - 99 suitable for Nested PCR</li> <li>* Time up/down: 0.9m59s suitable for long PCR</li> <li>* Temp. Up/down: 0.1-9.90C suitable for touchdown PCR</li> <li>* Memory: + or - 2000 programs on board unlimited with USB flash drives</li> <li>* Interface: USB, LAN, WIFI</li> <li>* Mobile App: IOS, Android</li> <li>* Power: 100-240V, 50-60Hz, 600W</li> </ul> <p>c. 1 unit - UV-PAD</p> <ul style="list-style-type: none"> <li>* UV Range: 312-365nm</li> <li>* Filter size: 21 x 26cm</li> </ul> <p>d. 1 unit - COMPUTER SET</p> <ul style="list-style-type: none"> <li>* CPU should contain build in software that will analyze the data produced in the Gel Documentation System.</li> </ul> <p>e. 1 unit - 3kVA UPS</p> <ul style="list-style-type: none"> <li>* WITH ON SITE TRAINING</li> </ul>	<p>Specifications:</p> <p>a. 1 unit - GEL DOCUMENTATION SYSTEM</p> <ul style="list-style-type: none"> <li>* <b>Dimensions: (WxDxH) approximately 47.5 x 38.0 x 71.5 cm</b></li> <li>* Field View: 26 x 21 cm</li> <li>* Camera Resolution: 5 megapixels up to 20 megapixels with auto-exposure, Auto-focus and Auto-lighting technology</li> <li>* Display: 12.6 touch screen</li> <li>* Connection: USB3 Connection-16-bit-65.536 grey levels</li> <li>* Operating Humidity: &lt;95% noncondensing</li> </ul> <p>Hardware:</p> <ul style="list-style-type: none"> <li>* Software control of the lighting</li> <li>* White light LED panels with automatic intensity adjustment</li> <li>* UV cut-off filter and 10 positions filter wheel</li> <li>* Slide-out Pad Box with automatic recognition of the Application Pad inserted</li> <li>* Made of Steel and with stainless steel darkroom for long lasting robustness. Has wide access door with UV safety shut-off</li> </ul> <p>b. 1 unit - THERMAL CYCLER (Gradient PCR)</p> <ul style="list-style-type: none"> <li>* Sample Capacity: 96.0.2ml; 12.8 strips</li> <li>* Temp. Range: 4-1050C (min resolution 0.10C)</li> <li>* Max. Heating Rate: 60C/sec</li> <li>* Max. Cooling Rate: 5.50C/sec</li> <li>* Temp. Uniformity: + or - 0.20C</li> <li>* Temp. Accuracy:+ or - 0.20C (30s after reaching 55, 72 and 350C respectively)</li> <li>* Hot-Lid Temperature Range: 30-1100C</li> <li>* Max. Cycles: + or - 99 suitable for Nested PCR</li> <li>* Time up/down: 0.9m59s suitable for long PCR</li> <li>* Temp. Up/down: 0.1-9.90C suitable for touchdown PCR</li> <li>* Memory: + or - 2000 programs on board unlimited with USB flash drives</li> <li>* Interface: USB, LAN, WIFI</li> <li>* <b>Mobile App: IOS or Android</b></li> <li>* Power: 100-240V, 50-60Hz, 600W</li> </ul> <p>c. 1 unit - UV-PAD</p> <ul style="list-style-type: none"> <li>* UV Range: 312-365nm</li> <li>* Filter size: 21 x 26cm</li> </ul> <p>d. 1 unit - COMPUTER SET</p> <ul style="list-style-type: none"> <li>* CPU should contain build in software that will analyze the data produced in the Gel Documentation System.</li> </ul> <p>e. 1 unit - 3kVA UPS</p> <ul style="list-style-type: none"> <li>* WITH ON SITE TRAINING</li> </ul>
<p>Item #8</p> <p><b>1 Unit AIR OVEN</b></p> <p>Specifications:</p> <ul style="list-style-type: none"> <li>* Setting Temp. Range: +20 to at least 800C</li> <li>* Working Temp. Range: at least 5 above ambient temperature to at least 800C</li> </ul>	<p><b>1 Unit AIR OVEN</b></p> <p>Specifications:</p> <ul style="list-style-type: none"> <li>* <b>Setting Temp. Range: 40 to at least 250°C</b></li> <li>* Working Temp. Range: at least 5 above ambient temperature to at least 800C</li> </ul>

<ul style="list-style-type: none"> <li>* Setting Accuracy Temp.: 0.10C</li> <li>* Temp. Sensor: Pt100sensor DIN class A in-wire-circuit</li> <li>* Interior: made of stainless steel, reinforced by deep drawn, with integrated and protected large -area for heating on four sides.</li> <li>* Volume: 32L</li> <li>* Max. number of internals: 3</li> <li>* Max. loading of chamber: 60kg</li> <li>* Max. loading per internal: 20kg</li> <li>* Timer: Digital backwards counter with target time setting, adjustable from 1 minute to 99 days</li> <li>* Voltage: 220V, 60Hz</li> <li>* Electrical load: Approx. 1600W</li> <li>* Convection: natural convection</li> <li>* WITH ON SITE TRAINING</li> </ul>	<ul style="list-style-type: none"> <li>* Setting Accuracy Temp.: 0.10C</li> <li>* Temp. Sensor: Pt100sensor DIN class A in-wire-circuit</li> <li>* Interior: made of stainless steel, reinforced by deep drawn, with integrated and protected large -area for heating on four sides.</li> <li>* Volume: 32L</li> <li>* Max. number of internals: 3</li> <li>* Max. loading of chamber: 60kg</li> <li>* Max. loading per internal: 20kg</li> <li>* Timer: Digital backwards counter with target time setting, adjustable from 1 minute to 99 days</li> <li>* Voltage: 220V, 60Hz</li> <li>* Electrical load: Approx. 1600W</li> <li>* Convection: natural convection</li> <li>* WITH ON SITE TRAINING</li> </ul>
<p>Item #10</p> <p><b>MUFFLE FURNACE</b></p> <p>Specification:</p> <ul style="list-style-type: none"> <li>* Max temp: 1150C</li> <li>* Continuous Temp. range: 100C- 1100C</li> <li>* Inside dimension (WxDxH) mm: 200x300x90</li> <li>* Inside Volume: 12L</li> <li>* Overall Dimension: 480x550x680 mm</li> <li>* Temp controller: digital PID</li> <li>* Controller or programmable controller: (5 pattern, 18 segment)</li> <li>* Timer: 99hrs 59mins (programmable) -4 - side heating</li> <li>* Power consumption: 3340w</li> <li>* Power: 220v/60 Hz</li> <li>* Weight: 28kg (61.73Lb)</li> </ul> <p><u>Safety device:</u></p> <ul style="list-style-type: none"> <li>* Over Temp. &amp; over current protector</li> <li>* Sensor error detector</li> </ul>	<p><b>MUFFLE FURNACE</b></p> <p>Specification:</p> <ul style="list-style-type: none"> <li>* Max temp: 1150C</li> <li>* Continuous Temp. range: 100C- 1100C</li> <li>* Inside Volume: at least 12L</li> <li>* Temp controller: digital PID</li> <li>* Controller or programmable controller: (5 pattern, 18 segment)</li> <li>* Timer: 99hrs 59mins (programmable) -4 - side heating</li> <li>* Power consumption: 3340w</li> <li>* Power: 220v/60 Hz</li> <li>* Weight: 28kg (61.73Lb)</li> </ul> <p><u>Safety device:</u></p> <ul style="list-style-type: none"> <li>* Over Temp. &amp; over current protector</li> <li>* Sensor error detector</li> </ul>
<p>Item #14</p> <p><b>1 Unit ULTRASONIC BATH</b></p> <p>Specification:</p> <ul style="list-style-type: none"> <li>* Frequency: 53KHz</li> <li>* Heating: Max. 600C</li> <li>* Degas</li> <li>* Timer: 1~99 min</li> <li>* Tank capacity: at least 3L</li> <li>* Stainless steel cover</li> <li>* Ultrasonic power: 100W</li> <li>* Heating power: 75W</li> <li>* Degas power: 100W</li> <li>* Net weight: at least 4.2 kg</li> <li>* Gross weight: at least 4.8 kg</li> <li>* Power supply: AC220V, 60Hz.</li> </ul>	<p><b>1 Unit ULTRASONIC BATH</b></p> <p>Specification:</p> <ul style="list-style-type: none"> <li>* <b>Frequency: at least 40KHz</b></li> <li>* Heating: Max. 600C</li> <li>* Degas</li> <li>* Timer: 1~99 min</li> <li>* Tank capacity: at least 3L</li> <li>* Stainless steel cover</li> <li>* Ultrasonic power: 100W</li> <li>* Heating power: 75W</li> <li>* Degas power: 100W</li> <li>* Net weight: at least 4.2 kg</li> <li>* Gross weight: at least 4.8 kg</li> <li>* Power supply: AC220V, 60Hz.</li> </ul>

**Reminder to Bidders:**

1. All bidders are required to post a Bid Security in a form of Cash, Manager's or Cashier's Check or Bid Securing Declaration. Personal Check is NOT allowed.
2. Bid Submission will be on or before November 19, 2021 @ 10:00 A.M. through **Manual Submission**. We encourage bidders to observe proper lead time in the transmission of bids to guarantee that bids proposals are received by the WMSU BAC before the scheduled time of opening.
3. The Opening of the bid will be on **November 19, 2021 @ 10:00 A.M.** at the BAC Office, Western Mindanao State University, Ground Floor Executive Building, Normal Road, Baliwasan, Zamboanga City.

For further inquiries, you may coordinate with the Bids and Awards Committee Secretariat at Tel. No. 991-7875.

Please be guided accordingly.



**JOEL G. FERNANDO, Ph.D.**  
BAC Chairman