



REPUBLIC OF THE PHILIPPINES  
Department of Health  
**NATIONAL CENTER FOR MENTAL HEALTH**  
Nueve de Febrero Street, Mandaluyong City, Philippines  
**BIDS AND AWARDS COMMITTEE**



Telephone No. 531-9001 loc. 242

Telefax No. 5318318

E-mail: bac@ncmh.gov.ph

Website: www.ncmh.gov.ph

## SECTION VII TECHNICAL SPECIFICATIONS

**ITB No. CS-08-2024**

**INSTRUCTION:** Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of ITB Clause 3.1(a) (ii) and/or GCC Clause 2.1(a)(ii).

| ITEM   | SPECIFICATION   | STATEMENT OF COMPLIANCE        |  |               |  |   |   |   |   |   |  |   |  |             |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
|--|---|--------------------------------|--|---------------|--|---|---|---|---|---|--|---|--|-------------|--|-------------------|-------------------|--|---|---|---|---|---|---|---|---|---|------|-------------|---|--|--|--|--|-----------|---|---|---|---|---|-------------|---|------|--------------------|---|---|--|--|--|------------------------|---|---|---|---|---|-------------|---|------|-----------|--|--|--|--|--|-------------------|---|---|---|---|---|-------------|---|------|-----------|---|---|---|--|--|---|---|---|---|---|---|--------|-----|------|--------------|--|--|---|--|--|---|---|---|---|---|---|--------|----|------|---------------|---|---|---|--|--|---|---|---|---|---|---|--------|----|------|-----------------|---|---|--|--|--|--------------------|---|---|---|---|---|-------------|---|------|---------------|---|--|--|--|--|-----------------|---|---|---|---|---|-------------|----|------|-------------|---|--|--|--|--|-------------------------|---|---|---|---|---|-------------|---|------|-------------|---|--|--|--|--|------------|---|---|---|---|---|-------------|---|------|-----------------------|---|--|--|--|--|------------------|---|---|---|---|---|-------------|---|------|---------------|--|--|--|--|--|-----------|---|---|---|---|---|-------------|
| <b>1 Lot</b>   | <b>PUBLIC BIDDING FOR THE PREVENTIVE MAINTENANCE AND CALIBRATION OF VARIOUS MEDICAL EQUIPMENT (GENERAL HOSPITAL, CLINICAL LABORATORY SECTION, ANATOMICAL LABORATORY SECTION AND DENTAL SECTION) CY 2024</b> |                                |  |               |  |   |   |   |   |   |  |   |  |             |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| <b>GENERAL HOSPITAL:</b>   |   |                                |  |               |  |   |   |   |   |   |  |   |  |             |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5" style="text-align: center;">CALIBRATION PARAMETERS<br/><i>(Quantitative Inspection)</i></th> <th colspan="5" style="text-align: center;">PREVENTIVE MAINTENANCE<br/><i>(Qualitative Inspection)</i></th> </tr> </thead> <tbody> <tr> <td colspan="5">(1) = ELECTRICAL SAFETY TESTING<br/>(2) = VOLUME<br/>(3) = FLOW/PRESSURE<br/>(4) = SPEED<br/>(5) = TEMPERATURE</td> <td colspan="5">(1) = PHYSICAL INSPECTION<br/>(2) = MECHANICAL INSPECTION<br/>(3) = OPERATIONAL/FUNCTIONALITY INSPECTION<br/>(4) = ELECTRICAL COMPONENT INSPECTION<br/>(5) = CLEANING INTERIOR AND EXTERIOR EXPONENT</td> </tr> </tbody> </table>   |   |                                | CALIBRATION PARAMETERS<br><i>(Quantitative Inspection)</i> |               |  |   |   | PREVENTIVE MAINTENANCE<br><i>(Qualitative Inspection)</i> |   |   |  |   | (1) = ELECTRICAL SAFETY TESTING<br>(2) = VOLUME<br>(3) = FLOW/PRESSURE<br>(4) = SPEED<br>(5) = TEMPERATURE |             |  |                   |                   | (1) = PHYSICAL INSPECTION<br>(2) = MECHANICAL INSPECTION<br>(3) = OPERATIONAL/FUNCTIONALITY INSPECTION<br>(4) = ELECTRICAL COMPONENT INSPECTION<br>(5) = CLEANING INTERIOR AND EXTERIOR EXPONENT |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| CALIBRATION PARAMETERS<br><i>(Quantitative Inspection)</i>   |   |                                |  |               | PREVENTIVE MAINTENANCE<br><i>(Qualitative Inspection)</i>  |   |   |   |   |   |  |   |  |             |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
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| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">QUANTITY</th> <th rowspan="2">UNIT OF ISSUE</th> <th rowspan="2">EQUIPMENT DESCRIPTION/ DETAILS</th> <th colspan="5">CALIBRATION PARAMETERS<br/><i>(Quantitative)</i><br/>Scope of Works</th> <th colspan="5">PREVENTIVE MAINTENANCE<br/><i>(Qualitative)</i><br/>Scope of Works</th> <th rowspan="2">SERVICE FREQUENCY</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>Unit</td> <td>ABG Machine</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td>PO2, PCO2</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Semi-Annual</td> </tr> <tr> <td>2</td> <td>Unit</td> <td>Anesthesia Machine</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td>Breath Rate, I:E ratio</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Semi-Annual</td> </tr> <tr> <td>4</td> <td>Unit</td> <td>Vaporizer</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Gas Concentration</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Semi-Annual</td> </tr> <tr> <td>2</td> <td>Unit</td> <td>Autoclave</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td>-</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Annual</td> </tr> <tr> <td>204</td> <td>Unit</td> <td>BP Apparatus</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td>-</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Annual</td> </tr> <tr> <td>21</td> <td>Unit</td> <td>BIPAP Machine</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td>-</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Annual</td> </tr> <tr> <td>14</td> <td>Unit</td> <td>Cardiac Monitor</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td>SpO2 %, NIBP, Rate</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Semi-Annual</td> </tr> <tr> <td>6</td> <td>Unit</td> <td>Defibrillator</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td>Energy (Joules)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Semi-Annual</td> </tr> <tr> <td>19</td> <td>Unit</td> <td>ECG Machine</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td>Paper speed, Rate (bpm)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Semi-Annual</td> </tr> <tr> <td>1</td> <td>Unit</td> <td>ECT Machine</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td>Rate (bpm)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Semi-Annual</td> </tr> <tr> <td>3</td> <td>Unit</td> <td>Electro Surgical Unit</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td>Watts (Cut-Coag)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Semi-Annual</td> </tr> <tr> <td>7</td> <td>Unit</td> <td>Fetal Doppler</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Rate(bpm)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>-</td> <td>Semi-Annual</td> </tr> </tbody> </table> |   |                                | QUANTITY   | UNIT OF ISSUE | EQUIPMENT DESCRIPTION/ DETAILS   | CALIBRATION PARAMETERS<br><i>(Quantitative)</i><br>Scope of Works |   |   |   |   | PREVENTIVE MAINTENANCE<br><i>(Qualitative)</i><br>Scope of Works |   |  |             |  | SERVICE FREQUENCY | 1                 | 2  | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 3 | Unit | ABG Machine | ✓ |  |  |  |  | PO2, PCO2 | ✓ | ✓ | ✓ | ✓ | - | Semi-Annual | 2 | Unit | Anesthesia Machine | ✓ | ✓ |  |  |  | Breath Rate, I:E ratio | ✓ | ✓ | ✓ | ✓ | - | Semi-Annual | 4 | Unit | Vaporizer |  |  |  |  |  | Gas Concentration | ✓ | ✓ | ✓ | ✓ | - | Semi-Annual | 2 | Unit | Autoclave | ✓ | ✓ | ✓ |  |  | - | ✓ | ✓ | ✓ | ✓ | - | Annual | 204 | Unit | BP Apparatus |  |  | ✓ |  |  | - | ✓ | ✓ | ✓ | ✓ | - | Annual | 21 | Unit | BIPAP Machine | ✓ | ✓ | ✓ |  |  | - | ✓ | ✓ | ✓ | ✓ | - | Annual | 14 | Unit | Cardiac Monitor | ✓ | ✓ |  |  |  | SpO2 %, NIBP, Rate | ✓ | ✓ | ✓ | ✓ | - | Semi-Annual | 6 | Unit | Defibrillator | ✓ |  |  |  |  | Energy (Joules) | ✓ | ✓ | ✓ | ✓ | - | Semi-Annual | 19 | Unit | ECG Machine | ✓ |  |  |  |  | Paper speed, Rate (bpm) | ✓ | ✓ | ✓ | ✓ | - | Semi-Annual | 1 | Unit | ECT Machine | ✓ |  |  |  |  | Rate (bpm) | ✓ | ✓ | ✓ | ✓ | - | Semi-Annual | 3 | Unit | Electro Surgical Unit | ✓ |  |  |  |  | Watts (Cut-Coag) | ✓ | ✓ | ✓ | ✓ | - | Semi-Annual | 7 | Unit | Fetal Doppler |  |  |  |  |  | Rate(bpm) | ✓ | ✓ | ✓ | ✓ | - | Semi-Annual |
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|  |   |                                | 1  | 2             | 3  | 4   | 5 | 1   | 2 | 3 | 4  | 5 |  |             |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 3  | Unit  | ABG Machine                    | ✓  |               |  |   |   | PO2, PCO2   | ✓ | ✓ | ✓  | ✓ | -  | Semi-Annual |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 2  | Unit  | Anesthesia Machine             | ✓  | ✓             |  |   |   | Breath Rate, I:E ratio                                    | ✓ | ✓ | ✓  | ✓ | -  | Semi-Annual |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 4  | Unit  | Vaporizer                      |  |               |  |   |   | Gas Concentration   | ✓ | ✓ | ✓  | ✓ | -  | Semi-Annual |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 2  | Unit  | Autoclave                      | ✓  | ✓             | ✓  |   |   | -   | ✓ | ✓ | ✓  | ✓ | -  | Annual      |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 204  | Unit  | BP Apparatus                   |  |               | ✓  |   |   | -   | ✓ | ✓ | ✓  | ✓ | -  | Annual      |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 21   | Unit  | BIPAP Machine                  | ✓  | ✓             | ✓  |   |   | -   | ✓ | ✓ | ✓  | ✓ | -  | Annual      |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 14   | Unit  | Cardiac Monitor                | ✓  | ✓             |  |   |   | SpO2 %, NIBP, Rate  | ✓ | ✓ | ✓  | ✓ | -  | Semi-Annual |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 6  | Unit  | Defibrillator                  | ✓  |               |  |   |   | Energy (Joules)   | ✓ | ✓ | ✓  | ✓ | -  | Semi-Annual |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 19   | Unit  | ECG Machine                    | ✓  |               |  |   |   | Paper speed, Rate (bpm)                                   | ✓ | ✓ | ✓  | ✓ | -  | Semi-Annual |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 1  | Unit  | ECT Machine                    | ✓  |               |  |   |   | Rate (bpm)  | ✓ | ✓ | ✓  | ✓ | -  | Semi-Annual |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 3  | Unit  | Electro Surgical Unit          | ✓  |               |  |   |   | Watts (Cut-Coag)  | ✓ | ✓ | ✓  | ✓ | -  | Semi-Annual |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |
| 7  | Unit  | Fetal Doppler                  |  |               |  |   |   | Rate(bpm)   | ✓ | ✓ | ✓  | ✓ | -  | Semi-Annual |  |                   |                   |  |   |   |   |   |   |   |   |   |   |      |             |   |  |  |  |  |           |   |   |   |   |   |             |   |      |                    |   |   |  |  |  |                        |   |   |   |   |   |             |   |      |           |  |  |  |  |  |                   |   |   |   |   |   |             |   |      |           |   |   |   |  |  |   |   |   |   |   |   |        |     |      |              |  |  |   |  |  |   |   |   |   |   |   |        |    |      |               |   |   |   |  |  |   |   |   |   |   |   |        |    |      |                 |   |   |  |  |  |                    |   |   |   |   |   |             |   |      |               |   |  |  |  |  |                 |   |   |   |   |   |             |    |      |             |   |  |  |  |  |                         |   |   |   |   |   |             |   |      |             |   |  |  |  |  |            |   |   |   |   |   |             |   |      |                       |   |  |  |  |  |                  |   |   |   |   |   |             |   |      |               |  |  |  |  |  |           |   |   |   |   |   |             |



|     |      |                                  |   |   |  |   |   |   |   |             |
|-----|------|----------------------------------|---|---|--|---|---|---|---|-------------|
| 16  | Unit | High Flo                         | ✓ | ✓ | -  | ✓ | ✓ | ✓ | - | Semi-Annual |
| 1   | Unit | Infant Weighing                  |   |   | Weight   | ✓ | ✓ | ✓ | ✓ | Annual      |
| 1   | Unit | Infant Incubator                 | ✓ | ✓ | -  | ✓ | ✓ | ✓ | ✓ | Semi-Annual |
| 11  | Unit | Infusion Pump                    | ✓ | ✓ | Flow Rate                                      | ✓ | ✓ | ✓ | ✓ | Semi-Annual |
| 24  | Unit | Mechanical Ventilator            | ✓ | ✓ | Breath rate(bpm), I:E Ratio, Oxygen percentage | ✓ | ✓ | ✓ | ✓ | Semi-Annual |
| 1   | Unit | Mixing Machine                   | ✓ | ✓ | -  | ✓ | ✓ | ✓ | ✓ | Annual      |
| 42  | Unit | Nebulizer                        |   | ✓ | -  | ✓ | ✓ | ✓ | ✓ | Annual      |
| 1   | Unit | OR Lights                        | ✓ |   | Illuminance                                    | ✓ | ✓ | ✓ | ✓ | Semi-Annual |
| 278 | Unit | Oxygen Regulator with Flow Meter |   | ✓ | -  | ✓ | ✓ | ✓ | ✓ | Annual      |
| 6   | Unit | Pharma Refrigerator              | ✓ | ✓ | -  | ✓ | ✓ | ✓ | ✓ | Annual      |
| 1   | Unit | Portable Ventilator (Ambulance)  | ✓ | ✓ | Breath rate(bpm), I:E Ratio, Oxygen percentage | ✓ | ✓ | ✓ | ✓ | Semi-Annual |
| 14  | Unit | Suction Machine                  |   | ✓ | -  | ✓ | ✓ | ✓ | ✓ | Annual      |
| 32  | Unit | Thermohygrometer                 |   | ✓ | -  | ✓ | ✓ | ✓ | ✓ | Annual      |
| 1   | Unit | Ultrasound                       | ✓ |   | Axial and Lateral resolution, Distance         | ✓ | ✓ | ✓ | ✓ | Annual      |
| 2   | Unit | UV Light                         | ✓ |   | UV Irradiance                                  | ✓ | ✓ | ✓ | ✓ | Annual      |
| 73  | Unit | Weighing Scale                   |   |   | Weight   | ✓ | ✓ | ✓ | ✓ | Annual      |

#### ADDITIONAL DETAILS FOR SCOPE OF WORKS

- Perform preventive maintenance including qualitative evaluation, adjustment, system performance test, software and hardware updates and replacement of PM parts/kit if necessary. Any consumables to be used during the test will be provided by the service provider such as reagents/solutions/ machine supplies (e.g. Isoflurane/sevoflurane /films/patch/lubricants etc.)
- Perform Calibration/verification which include quantitative evaluation using calibrated test equipment/tools
- Cleaning, lubricating and perform minor hardware or software repair if necessary
- Application of preventive maintenance and calibration stickers which indicates PM and calibration date and due date

#### TERMS OF REFERENCE

- Service provider must have an existing physical calibration facility / laboratory in the Philippines
- All service shall be done at the National Center for Mental Health facilities
- Service provider should coordinate with Medical Equipment Maintenance Unit before and after the preventive maintenance and other services
- Medical equipment found defective prior to the preventive maintenance and calibration procedure will not be included in the payment
- Service provider must have full-time certified biomedical technicians with NCII certificates of Biomedical Equipment Servicing or engineer with PRC license
- Service provider shall provide the following:
  - Current, valid and National Institute of Standards and Technology (NIST) traceable certificate of calibration or other international standards for the test/calibration equipment to be used.
  - FOUR (4) copies of completed Service Report for minor repair or for the medical equipment may found defective.
  - FOUR (4) copies of completed Preventive Maintenance Report and Calibration Certificate for each equipment which includes qualitative and quantitative data compliant with ISO 9001 documentation.
  - Current and Valid Training Certificates of technicians/engineers who performed the services
  - Proof of ownership for the test/calibration equipment.
  - ISO Certification related to calibration or other technical services

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| CHECKED AND EVALUATED BY<br><br>John Weil Q. De Leon | APPROVED BY<br> |
| MEDICAL EQUIPMENT MAINTENANCE UNIT  | CHIEF, FACILITIES AND EQUIPMENT MAINTENANCE SECTION  |

## CLINICAL LABORATORY EQUIPMENT:

| CALIBRATION PARAMETERS<br><i>(Quantitative Inspection)</i>  |               |  |   |   | PREVENTIVE MAINTENANCE<br><i>(Qualitative Inspection)</i>  |   |   |  |   |   |   |   |                   |        |
|---|---------------|--|---|---|--|---|---|--|---|---|---|---|-------------------|--------|
| (1) = ELECTRICAL SAFETY TESTING<br>(2) = VOLUME<br>(3) = FLOW/PRESSURE<br>(4) = SPEED/TIME<br>(6) = TEMPERATURE |               |  |   |   | (1) = PHYSICAL INSPECTION<br>(2) = MECHANICAL INSPECTION<br>(3) = OPERATIONAL/FUNCTIONALITY INSPECTION<br>(4) = ELECTRICAL COMPONENT INSPECTION<br>(5) = CLEANING INTERIOR AND EXTERIOR EXPONENT |   |   |  |   |   |   |   |                   |        |
| QUANTITY  | UNIT OF ISSUE | EQUIPMENT DESCRIPTION/DETAILS  | CALIBRATION PARAMETERS<br><i>(Quantitative)</i> |   |  |   |   | PREVENTIVE MAINTENANCE<br><i>(Qualitative)</i> |   |   |   |   | SERVICE FREQUENCY |        |
|   |               |  | 1   | 2 | 3  | 4 | 5 | 1  | 2 | 3 | 4 | 5 |                   |        |
| 2   | pc            | Biological Refrigerator (single door)  | X   |   |  |   | X | X  | X | X | X |   |                   | Annual |
| 2   | pc            | Biological Refrigerator (double door)  | X   |   |  |   | X | X  | X | X | X |   |                   | Annual |
| 1   | pc            | Analytical Balance, Digital  | X   | X |  |   | X | X  | X | X | X |   |                   | Annual |
| 2   | pc            | Autoclave, bench top, stainless steel, 40L capacity  | X   |   | X  |   |   |  |   |   |   |   |                   | Annual |
| 1   | pc            | Autoclave, floor type, stainless steel, 1076L capacity                                     | X   |   | X  |   |   |  |   |   |   |   |                   | Annual |
| 1   | pc            | Blood Typing and Crossmatching System using gel technique (Diamed) Incubator               | X   |   | X  |   |   |  |   |   |   |   |                   | Annual |
| 1   | pc            | Blood Typing and Crossmatching System using gel technique (Diamed) centrifuge              | X   |   | X  |   |   |  |   |   |   |   |                   | Annual |
| 4   | pc            | Biological Safety Cabinet, Class II, Type A2, Anti UV tempered glass                       | X   | X |  |   |   |  |   | X | X | X | X                 | Annual |
|   |               |  |   |   |  |   |   |  |   |   |   |   |                   |        |
|   |               |  |   |   |  |   |   |  |   |   |   |   |                   |        |
| 1   | pc            | Blood Bank Refrigerator, 30 bag capacity, digital temp control, triple layer, glass window | X   |   |  |   | X |  |   | X | X | X | X                 | Annual |
| 2   | pc            | Centrifuge, Clinical, bench top, 24 placer   | X   |   |  | X |   |  |   | X | X | X | X                 | Annual |
| 3   | pc            | Centrifuge, Clinical, bench top, 12 placer   | X   |   |  | X |   |  |   | X | X | X | X                 | Annual |
| 1   | pc            | Water bath, Digital temp. setting  | X   |   |  |   | X |  |   | X | X | X | X                 | Annual |
| 1   | pc            | Drying Oven, Digital Temp Control  | X   |   |  | X |   |  |   | X | X | X | X                 | Annual |
| 1   | pc            | Incubator, Dry, 15-20L capacity, bench top   | X   |   |  | X |   |  |   | X | X | X | X                 | Annual |
| 1   | pc            | Incubator, Dry, 50-60L capacity, bench top   | X   |   |  | X |   |  |   | X | X | X | X                 | Annual |
| 8   | pc            | Microscope, Binocular (I.E.D.) Olympus   | X   |   |  |   |   |  |   | X | X | X | X                 | Annual |
| 1   | pc            | Mechanical Reator, bench top   | X   |   | X  |   |   |  |   | X | X | X | X                 | Annual |
| 1   | pc            | Vortex Shaker, 1 unit  | X   |   | X  |   |   |  |   | X | X | X | X                 | Annual |

**MINIMUM REQUIREMENTS FOR GENERAL EQUIPMENT/ HIGH-END AND CRITICAL EQUIPMENT**

- Perform preventive maintenance including qualitative evaluation, adjustment, system performance test, software and hardware updates and replacement of PM parts/kit's if necessary.
- Perform calibration and verification which include quantitative evaluation using calibrated test equipment.
- Cleaning, lubricating and perform minor hardware or software repair if necessary.
- Application of preventive maintenance and calibration stickers which indicates PM and calibration date and due date.

- TERMS OF REFERENCE**
1. Onsite calibration and preventive maintenance
  2. Conduct performance verification of laboratory equipment
  3. Conduct calibration with participation of Hospital in-charge technicians/employee on site
  4. Provide PMS stickers on all equipment indicating PMS and calibration date
  5. Submit report/findings and recommendations on all equipment
  6. Submit calibration certificate and service report indicating status of each unit seven (7) days after service
  7. Submit certificate of all calibration tools used for the calibration of equipment
  8. Any damage on equipment incurred during the conduct of PMS/Calibration shall be paid by the service provider
  9. Trained service engineers – training certificates from accredited training centers shall be submitted
- NOTE: For the following equipment, service provider shall provide current and valid certificate of distributorship and/or certificate of exclusivity namely:
1. WTEK 2 compact- Automated Microbial Identification and Susceptibility testing System
  2. COBAS e-411- Automated Immunology Analyzer
  3. Mindray C3100 – Automated Coagulation Analyzer

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| Jonnelly Ann L. Westra, MT, MMHQA<br>Chief Medical Technologist<br><b>REQUESTING OFFICER</b> | <br>Frank Anthony E. Panganiban, MD, MMHQA, DPM<br>Officer-in-Charge<br><b>CHIEF OF SECTION</b> |
| <br>O. DE LEON<br><b>MEDICAL EQUIPMENT MAINTENANCE UNIT</b>                                  | <br>G. DE LEON<br><b>CHIEF, FACILITIES AND EQUIPMENT MAINTENANCE SECTION</b>                    |

**ANATOMICAL LABORATORY SECTION:**

| CALIBRATION PARAMETERS<br>(Quantitative Inspection)  |               |  |   |   |   | PREVENTIVE MAINTENANCE<br>(Qualitative Inspection)   |   |   |   |   |   |   |                   |        |
|--|---------------|--|---|---|---|--|---|---|---|---|---|---|-------------------|--------|
| (1) = ELECTRICAL SAFETY TESTING<br>(2) = VOLUME<br>(3) = FLOW/PRESSURE<br>(4) = SPEED<br>(5) = TEMPERATURE |               |  |   |   |   | (1) = PHYSICAL INSPECTION<br>(2) = MECHANICAL INSPECTION<br>(3) = OPERATIONAL/FUNCTIONALITY INSPECTION<br>(4) = ELECTRICAL COMPONENT INSPECTION<br>(5) = CLEANING INTERIOR AND EXTERIOR EXPONENT |   |   |   |   |   |   |                   |        |
| QUANTITY   | UNIT OF ISSUE | EQUIPMENT DESCRIPTION/ DETAILS   | CALIBRATION PARAMETERS (Scope of Works) |   |   |  |   | PREVENTIVE MAINTENANCE (Scope of Works) |   |   |   |   | SERVICE FREQUENCY |        |
|  |               |  | 1                                       | 2 | 3 | 4  | 5 | OTHERS (please specify)                 | 1 | 2 | 3 | 4 |                   | 5      |
| 1  | Unit          | Automatic Tissue Processor "Leica" TF1020 SN#4258  | ✓                                       |   |   |  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |
| 1  | Unit          | Cryostat "Leica" CM1850 SN# 2088   | ✓                                       |   |   | ✓  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |
| 1  | Unit          | Rotary Microtome "Leica" RM 2125RT SN# 11881   |   |   |   |  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |
| 1  | Unit          | Gross Pathology Station Jr. Thermo Scientific Instruments, SHANDON, SN#901110502               | ✓                                       |   |   |  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |
| 1  | Unit          | Tissue Embedding Station, Sakura Brand, Model tec Cro Module, SN#52360144, SN#52370144         | ✓                                       |   |   | ✓  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |
| 1  | Unit          | One (1) Body Cadaver Refrigerator Model ANGELANTONI, SN# 64294                                 | ✓                                       |   |   | ✓  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |
| 1  | Unit          | Two (2) Body Cadaver Refrigerator, Model CEARIS, SN# 01E22145                                  | ✓                                       |   |   | ✓  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |
| 2  | Unit          | Two (2) Body Cadaver Refrigerator, Model MORTECH, SN#7467, SN# 08103                           | ✓                                       |   |   | ✓  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |
| 1  | Unit          | Microscope, 3 Header with Scientific Digital Camera, BX43 LED, 3 headers and DP 27, SN#6H46220 | ✓                                       |   |   | ✓  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |
| 3  | Unit          | Microscope, Olympus, Model CX31, SN# 2L31743, Model CX21 LED, SN#0L83114                       | ✓                                       |   |   | ✓  |   |   | ✓ | ✓ | ✓ | ✓ |                   | Annual |

|   |      |   |   |  |  |   |  |  |   |   |   |   |  |        |
|---|------|---|---|--|--|---|--|--|---|---|---|---|--|--------|
|   |      | Model CX21 LED, SN# 1A810   |   |  |  |   |  |  |   |   |   |   |  |        |
| 2 | Unit | Electric Bone Autopsy Saw SN# 1485, SN# 19402-133                     | ✓ |  |  |   |  |  | ✓ | ✓ | ✓ | ✓ |  | Annual |
| 1 | Unit | Paraffin Oven, Model 9071, RN# L-407424                               | ✓ |  |  | ✓ |  |  | ✓ | ✓ | ✓ | ✓ |  | Annual |
| 1 | Unit | Water Floation Bath, "THERMO BD" SN#SB1028C1009                       | ✓ |  |  | ✓ |  |  | ✓ | ✓ | ✓ | ✓ |  | Annual |
| 2 | Unit | Thermometer, digital and analogue                                     |   |  |  | ✓ |  |  | ✓ | ✓ | ✓ | ✓ |  | Annual |
| 2 | Unit | Weighing Scale, Fuji, Top Loading digital, SN# A10202149, SN#S1610085 | ✓ |  |  |   |  |  | ✓ | ✓ | ✓ | ✓ |  | Annual |

- Perform preventive maintenance including qualitative evaluation, adjustment, system performance test, software and hardware updates and replacement of PM parts/kit if necessary. Any consumables to be used during the test will be provided by the service provider such as reagents/solutions/ machine supplies (e.g. isofluorane/evofluorane films/patch/lubricants etc.)
- Perform Calibration verification which include quantitative evaluation using calibrated test equipment/tools
- Cleaning, lubricating and perform minor hardware or software repair if necessary
- Application of preventive maintenance and calibration stickers which indicates PM and calibration date and due date


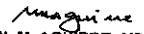


- All service shall be done at the National Center for Mental Health facilities
- General Scope of Works for Preventive Maintenance and/or Calibration Services should apply to all medical equipment
- Service provider should coordinate with Medical Equipment Maintenance Unit before and after the preventive maintenance and other services.
- Medical equipment found defective prior to the preventive maintenance and calibration procedure will not be included in the payment
- Service provider must have full-time certified biomedical technicians with NCII certificates of Biomedical Equipment Servicing or engineer with PRC license
- Service provider shall provide the following:
  - Current, valid and National Institute of Standards and Technology (NIST) traceable certificate of calibration or other international standards for the test/calibration equipment to be used.
  - FOUR (4) copies of completed Service Report for minor repair or for the medical equipment may found defective.
  - FOUR (4) copies of completed Preventive Maintenance Report and Calibration Certificate for each equipment which includes qualitative and quantitative data
  - Current and Valid Training Certificates of technicians/engineers who performed the services
  - Proof of ownership for the test/calibration equipment.

Note: Current Certificate of Exclusive Distributorships for the following equipment, namely:

- 1.) 3-unit Microscope, Olympus, CX31, CX21 LED
- 2.) 1-unit Microscope, 3 Header, BX43 LED
- 3.) 2-units 2 Body Cadaver Refrigerator (MORTECH)
- 4.) 1 unit 2 Body Cadaver Refrigerator (CEABIS)

Note: For the following equipment (high-end and critical equipment) Additional terms of reference: Service engineers/technicians must have training certificates from the manufacturer of the equipment or from manufacturer of similar equipment and the company/bidder must have available or access to spare parts for the equipment, namely:

- 1.) Cryostat
- 2.) Rotary Microtome
- 3.) Tissue processor

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| <br><b>JOSELYN B. DELA ROSA, RMT, MPA</b><br>REQUESTING OFFICER       | <br><b>ROMIL M. AGUIRRE, MD, FPSP, MMHoA</b><br>CHIEF OF SECTION                          |
| <br><b>JOHN WEIL Q. DE LEON</b><br>MEDICAL EQUIPMENT MAINTENANCE UNIT | <br><b>CASIMIRO F. DONATO, CE</b><br>CHIEF, FACILITIES AND EQUIPMENT MAINTENANCE SECTION |

**DENTAL SECTION:**

| CALIBRATION PARAMETERS<br>(Quantitative Inspection)   |               | PREVENTIVE MAINTENANCE<br>(Qualitative Inspection)   |  |   |   |   |   |   |   |   |   |   |  |             |
|---|---------------|--|--|---|---|---|---|---|---|---|---|---|--|-------------|
| (1)=ELECTRICAL SAFETY TESTING<br>(2)= VOLUME<br>(3) = FLOW/PRESSURE<br>(4) = SPEED<br>(5) = TEMPERATURE |               | (1)=PHYSICAL INSPECTION<br>(2)=MECHANICAL INSPECTION<br>(3)=OPERATIONAL/FUNCTIONALITY INSPECTION<br>(4)=ELECTRICAL COMPONENT INSPECTION<br>(5)=CLEANING INTERIOR AND EXTERIOR EXPONENT |  |   |   |   |   |   |   |   |   |   |  |             |
| QUANTITY  | UNIT OF ISSUE | EQUIPMENT DESCRIPTION/ DETAILS   | CALIBRATION PARAMETERS (Quantitative) Scope of Works |   |   |   |   | PREVENTIVE MAINTENANCE (Qualitative) Scope of Works |   |   |   |   | SERVICE FREQUENCY                          |             |
|   |               |  | 1  | 2 | 3 | 4 | 5 | OTHERS (please specify)                             | 1 | 2 | 3 | 4 |  | 5           |
| 11  | Unit          | Dental Chair   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | -  | Semi-Annual |
| 7   | Unit          | Autoclave Machine  | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | -  | Annual      |
| 9   | Unit          | UV Dry Heat Sterilizer   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | -  | Semi-Annual |
| 9   | Unit          | Ultrasonic Scaler  | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | -  | Semi-Annual |
| 8   | Unit          | Light Cure Machine   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | -  | Semi-Annual |
| 7   | Unit          | Extra Oral Suction Machine   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | Replacement of all Filters                 | Semi-Annual |
| 2   | Unit          | Intra Oral Suction Machine   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | Replacement of all Filters                 | Semi-Annual |
| 1   | Unit          | Dental X-ray   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | -  | Semi-Annual |
| 7   | Unit          | Micromotor Unit  | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | -  | Semi-Annual |
| 9   | Unit          | Contra Angle handpiece   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | Replacement of bearing with 6 mos warranty | Semi-Annual |
| 9   | Unit          | High Speed handpiece   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | Replacement of bearing with 6 mos warranty | Semi-Annual |
| 7   | Unit          | Surgical handpiece   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | Replacement of bearing with 6 mos warranty | Semi-Annual |
| 7   | Unit          | BP Apparatus   | ✓  | ✓ | ✓ | ✓ | - | ✓   | ✓ | ✓ | ✓ | ✓ | -  | Annual      |

- SCOPE OF WORKS**
- Perform preventive maintenance including qualitative evaluation, adjustment, system performance test, software and hardware updates and replacement of PM parts/kit if necessary. Any consumables to be used during the test will be provided by the service providers such as reagents/solutions/ machine supplies (e.g. Isoflurane/sevoflurane /film/patch/lubricants etc.)
  - Perform Calibration/verification which include quantitative evaluation using calibrated test equipment/tools
  - Cleaning, lubricating and perform minor hardware or software repair if necessary
  - Application of preventive maintenance and calibration stickers which indicates PM and calibration date and due date
  - Filter replacement of Extra/ Intra-oral Suction Machines.
  - Bearing replacement of Highspeed, Contra-angle, and Surgical Handpieces (with six (6) months warranty).

- GENERAL REQUIREMENTS**
- Service provider must have an existing physical calibration facility / laboratory in the Philippines
  - All service shall be done at the National Center for Mental Health facilities
  - General Scope of Works for Preventive Maintenance and/or Calibration Services should apply to all medical equipment
  - Service provider should coordinate with Medical Equipment Maintenance Unit before and after the preventive maintenance and other services
  - Medical equipment found defective prior to the preventive maintenance and calibration procedure will not be included in the payment
  - Service provider must have full-time certified biomedical technicians with NCII certificates of Biomedical Equipment Servicing or engineer with PRC license
  - Service provider shall provide the following:
    - Current, valid and National Institute of Standards and Technology (NIST) traceable certificate of calibration or other international standards for the test/calibration equipment to be used
    - FOUR (4) copies of completed Service Report for minor repair or for the medical equipment may found defective.
    - FOUR (4) copies of completed Preventive Maintenance Report and Calibration Certificate for each equipment which includes qualitative and quantitative data compliant with ISO 9001 documentation.
    - Current and Valid Training Certificates of technicians/engineers who performed the services
    - Proof of ownership for the test/calibration equipment.
    - ISO Certification related to calibration or other technical services

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| JERVIS G. LOPEZ, DMD, MMHC<br>REQUESTING OFFICER  | MARIA DEL CARMEN G. BUENDIA, DMD, MMHC<br>CHIEF OF SECTION       |
| [Signature]<br>MEDICAL EQUIPMENT MAINTENANCE UNIT | [Signature]<br>CHIEF, FACILITY AND EQUIPMENT MAINTENANCE SECTION |

Conformed by:

Authorized Representative's Signature over printed name

Date: \_\_\_\_\_