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**TO SUPPLY, DELIVER, INSTALL AND COMMISSIONING “Body Impedance Analyzer (BIA)”**

TO INSTITUT PERUBATAN DAN PERGIGIAN TERMAJU, UNIVERSITI SAINS MALAYSIA

TECHNICAL SPECIFICATION SCHEDULE

**QUOTATION NO. : SH1/18/RU/CIPPT/U/00016**

| **ITEM****NO.** | **UNIVERSITY’S DESCRIPTION** | **QUANTITY** | **BIDDER’S SPECIFICATION****(Please Write Your Specification In This Column)** | TECHNICAL EVALUATION**(For Official use only)** |
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| **A.****B.****C.****D.****E.****F.****G.** | **ITEM NAME**Body Impedance Analyzer (BIA)**DESCRIPTION** Body Impedance Analyzer (BIA) is intended to measure and display the body composition such as body weight, percent of body fat, percent of skeletal muscle, visceral fat, body mass Index (BMI) and body age**.****ESSENTIAL COMPONENTS**1. Body Impedance Analyzer With Bluetooth
2. Body Impedance Analyzer Without Bluetooth
3. Alkaline Battery
4. Battery Charger
5. Software development kits
6. Weight Calibrator

**TECHNICAL SPECIFICATION**This item must have special specifications as follows:1. Body Impedance Analyzer With Bluetooth
	1. Shall be able to analyze Body weight (0 to 150 kg)
	2. Shall be able to analyze Body fat percentage (5.0 to 60.0%)
	3. Shall be able to analyze Skeletal muscle percentage (5.0 to 50.0%)
	4. Shall be able to analyze BMI (7.0 to 90.0)
	5. Shall be able to analyze Resting metabolism (385 to 3999 kcal)
	6. Shall be suitable for Body age (18 to 80 years old)
	7. Shall be able to analyze Visceral fat level (30 levels)
	8. Shall be able to display Body fat percentage and Skeletal muscle percentage classification: (– (Low) / 0 (Normal) / + (High) / ++ (Very High))
	9. Shall be able to display Visceral fat classification (0 (Normal) / + (High) / ++ (Very High))
	10. Shall have Unit stored memory: Up to 30 sets
	11. Shall have Bluetooth® wireless technology Version 2.1 + EDR Class 2 transmission protocol
	12. Shall have Set Ranges of Personal data Information:
		1. Height: 3' 4" to 6' 6 3/4" (100.0 to 199.5 cm)
		2. Birth Date: January 1st, 1900 to December 31st, 2030
		3. Gender: Male/Female
	13. Shall have Operating Temperature/Humidity:+50°F to +104°F (+10°C to +40°C), 30 to 85% RH
	14. Shall have Storage Temperature/Humidity/Air Pressure:–4°F to +140°F (–20°C to +60°C), 10 to 95% RH, 700 - 1060 hPa
	15. Shall have External Dimensions of approximately 11 3/4" (W) x 1 1/2" (H) x 11 3/8" (D)
	16. Shall weight approximately 4 lb (including batteries)
	17. Shall provide statement about the amount of calories
	18. Shall have Touch control buttons consisting of ON, OFF, MEMORY, BACK, FORWARD
	19. Shall be able to estimates the body composition by the Bioelectrical Impedance method.
2. Alkaline Battery
	1. Shall be Rechargeable battery
	2. Shall be provided with 4 cells per set
	3. Shall have Charge capacity: 2300 mAH
	4. Shall have Battery Life Approximately 6 months (When AA alkaline batteries are used with four measurements and data transfers a day at a room temperature of 23ºC.)
	5. Shall have Charge cycle: up to 1000 times
	6. Shall have Charge retention: Lasts up to 12 months
	7. Shall be Secure Seal for Better Leak Protection
	8. Shall be Resistant to Extreme Temperatures
	9. Shall be Mercury free
	10. Shall be provided in size AA
	11. Shall have Nominal Voltage:1.2V
3. Battery Charger
	1. Shall be able to charge 2 or 4 AA battery at a time
	2. Shall have Fold-out plug for compact storage
	3. Shall have Auto timer
	4. Shall have Auto Shut-off
	5. Shall have Short circuit detection
	6. Shall have Good/bad battery status
	7. Shall have 3-pin plug point
	8. Shall have Input AC 100-240V, 50,60Hz 6W
	9. Shall have Charging current output: DC 2.8V-260-360mA (AA x 2or 4)
4. Software development kits
	1. Shall have Continua-compliant HDP (Health Device Profile) and SPP (Serial Port Profile). With complete development documentation
	2. Shall be able to show Historical graphs and reports allow tracking changes over time.
	3. Must be compatible to Run on Windows, Macintosh and Linux computers
	4. Must provide Installation software by CD or online.
5. Weight Calibrator
	1. Weights must be top loaded
	2. Unit of weights must be in 5 Kg
	3. Must be recalibrated with Authorize dealer after one year
	4. Shall be resistant to extreme temperatures and pressure

**STANDARD REQUIREMENTS AND INSTRUCTIONS** 1. Suppliers shall furnish a clause-by-clause commentary (detail comments) on the above requirements. The supplier who commented with texts such as “Yes”, “Complied”, “Refer to catalogue” or any text of this nature shall be considered as NON-RESPONSIVE.
2. The supplier shall tag and highlight in the catalogue or other related documents the statements that conform to the specification requirements.
3. The equipment supplied must be brand new with proper serial number to prove it and must not be a used or a reconditioned instrument.
4. The equipment must be fully installed and made fully functioning at site.
5. The equipment supplied must be warranted against manufacturing defects for at least 24 months from the date of accepted commissioning.
6. At least 2 free preventive maintenance services on-site every year during the warranty period.
7. The supplier has to give information regarding their servicing capabilities / after sales service for the equipment quoted.
8. Quotation that does not quote prices exclusive of tax will not be considered.
9. All installation charges inclusive of M&E and builder’s works must be borne by the supplier. The supplier shall be responsible for making good of any damages done to the buildings, structures and furnishes.
10. Service contract and software upgrading must be quoted separately.
11. Supplier shall provide Original Catalogue of all the equipment supplied.
12. Power requirement to follow Malaysia’s national voltage: 230V, 50 Hz for single phase.
13. The delivery of Body Impedance Analyzer Without Bluetooth must be arrived before 20th March 2018.
14. The delivery of Body Impedance Analyzer With Bluetooth must be arrived before 10th April 2018.

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|  No. | **Item** |  **Quantity** |
| 1 | Body Impedance Analyzer With Bluetooth | 37 units |
| 3 | Alkaline Battery | 148 pcs |
| 4 | Battery Charger | 37 units |
| 5 | Software development kits | 37 units |
| 6 | Weight Calibrator | 37 units |

**Documentation**At least two copies of the following documents in English must be provided:1. Operating Manual.
2. Technical Manual.
3. Performance test certificates.
4. Original Catalogue.
5. Maintenance instructions, part list and recommended spare part list.
6. Manufacturing certificates.
7. Shop drawing (if applicable).

**Training**1. On-site training must be provided with sufficient period of time.
2. The training must include theory, application and troubleshooting aspects.
3. Functioning and maintenance of the machine.
4. Safety of the machine.
5. Assembly on site.
6. Schematic interpretation.
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