



GOVERNMENT OF KERALA
GOVERNMENT MEDICAL COLLEGE KOTTAYAM
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No.GMCKTM/2714/ 2025 -C6

Date:25-10-2025

SHORT QUOTATION NOTICE

Sealed quotations are invited for *Purchase of Basal metabolic rate apparatus 1 nos ,Olfactometer 3 nos and thermo aesthesiometer 30 nos for Physiology Department Govt. Medical College , Kottayam*

The envelopes containing the quotation should bear the superscription “**Quotation for Purchase Basal metabolic rate apparatus 1 nos ,Olfactometer 3 nos and thermo aesthesiometer 30 nos for Physiology Department Govt. Medical College , Kottayam,** and should be addressed to “The Principal, Govt. Medical College, Kottayam-8”. Intending tenders may submit the quotation on their own papers

Last date and time for receipt of quotation will be *05.11.2025 12 '0' clock* Late quotations will not be accepted. The quotations will be opened on *05.11.2025, 2.00 PM* in the presence of such of the tenders or their authorized representatives who may be present at that time.

Further details of the requirements and the conditions governing their supply can be obtained free on request from the Principal, Govt.. Medical College, Kottayam till *05.11.2025, 11.00 am*

Note; Specification is enclosed herewith . For Further details regarding the specification,can be had from the office until *05.11.2025 11 am*

PRINCIPAL

Copy to

1. Librarian , Central Library (for Publishing in Website)
2. Notice Board-MCK/MCH/ICH/DCK/CNK

Signed by

Dr Varghese P Punnoose

Date: 25-10-2025 11:00:00

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SPECIFICATION FOR BMR APPARATUS

Main Components and Features

- **Spirometer:**
- **Capacity:** Typically 6 liters.
- **Construction:** A hollow double-walled vessel filled with water to create an airtight system.
- **Bell:** An inverted, hollow cylindrical bell fits inside the water-filled vessel.
- **Recording System:**
- **Kymograph:** A rotating drum that moves the recording paper.
- **Recording Pen:** A pen attached to the bell via a chain and pulley system to record the lung volume changes on the kymograph.
- **Kymograph Speeds:** The kymograph can be adjusted to different speeds (e.g., 2 or 4 speeds).
- **Ancillary Components:**
- **Valves and Tubing:** For breathing in and out.
- **Mouthpiece:** For the subject to breathe through.
- **Nose Clips:** To prevent air leakage through the nose.
- **Soda-Lime Container:** Often included in the central chamber to absorb carbon dioxide during the experiment.

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For HOD
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OLFACTOMETER - SPECIFICATIONS

Panel Size	1-8 panelists can participate in a single test, as specified by the administrator
Panel Order Setup	Users can either run 1 test at a time and rotate to the next panelist, or conduct the full test sequence then rotate
Testing Modes	Triangular forced choice, binary forced choice, direct presentation, hedonic tone, GB source, and GB boundary
Multiple Odourants	4-8 odourant capabilities (must be specified when ordering) allowing for mixing
Dilution Principle	Venturi educator
Control Mechanism	Mass flow controllers on both clean air and sample air intake
Dilution Range	2^3 to 2^{17} optional range extension
Dilution Steps	Variable
Accuracy	95%
Total Air Usage	70 Liters per minute at 80- PSI of clean air
Pressure Flow Rate	Variable, 5 to 30 liters per minute
Presentation Velocity	0.25 m/s at 20 liters per minute
Response Time	0.2s
Sample Delivery	Adjustable

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SPECIFICATION OF THERMO AESTHESIOMETER

- **Temperature Characteristics:**
- **Accuracy:** Precision in maintaining the set temperature, often specified with a maximum error like $\pm 0.5^{\circ}\text{C}$.
- **Range:** The minimum and maximum temperatures the device can reach and test.
- **Rate of Change:** The speed at which the temperature can be increased or decreased.
- **Design and Materials:**
- **Probe Material:** For medical use, probes might mimic human skin properties. For burn analysis, specialized encapsulated materials with similar thermal properties to tissue are used.
- **Ergonomics:** For medical applications, comfort and ease of use are crucial for the user applying the probe to the skin.

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