

MODEL ENGINEERING COLLEGE  
THRIKKAKA, COCHIN-21  
PH:2577379,2575370

Ref no.A2/3658/18/MEC  
Tender No.8/2018-19/MEC

dtd 26.11.2018

**TENDER shedule**

Sealed tenders in the prescribed format are invited for the purchase of “Measuring Instruments ” for various department of this institution under Plan fund 2018-19.

- 1.Last date and time of sale of tender form:12/12/2018 10 am
- 2.Last Date & Time of Reciept of Tender: 12/12/2018 11 am
- 3.Date & Time of Opening of Tender:12/12/2018 2.30 P M

Cost of Tender Form:

Original : 400 + 18% GST

Duplicate :200 + 18% GST

Tender form and details can be had from Model Engineering College,Thrirkakara. Mode of remittance by Cash payment at College Office.Those who apply for tender form by post should remit additional amount of Rs.50/- as postal charges.Agreement in stamp paper worth Rs.200/- to accompany tender.EMD 1% of quoted amount. Further details available at [www.mec.ac.in/](http://www.mec.ac.in/) Tenders.

PRINCIPAL

MODEL ENGINEERING COLLEGE  
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**Specification**

| Sl. No. | Item               | Specifications  | Quantity |
|---------|--------------------|---|----------|
| 1.      | Digital Multimeter | Basic Accuracy 0.25% of measured value ,<br>3 3/4 digit Multimeter, 3100 Counts, AC and DC<br>Current measurement – 300microA range to 10A<br>range – Fuse protected, AC Voltage – 1000V –<br>Over voltage upto 1200V continuous,<br>DC Voltage – 1000V – Over voltage up to 1200V<br>continuous Capacitance Measurement up to 30<br>Micro Farad Frequency Measurement up to<br>100kHz Resistance - 30 M Ohms, Temperature<br>measurement Diode and Continuity Testing.<br>Auto/ Manual range selection. Digital & Analog<br>Indication Automatic Terminal Blocking system<br>for protection of DMM Voltage protection up to<br>500 Volts continuous in Resistance, Diode,<br>Continuity and Temperature measuring range.<br>Continuous storage and updation of MIN/MAX<br>values. Indication of Negative and Positive values<br>on Analog Scale. Lead resistance compensation<br>for resistance and temperature. Fast Acting Fuses<br>for over current and short circuit protection.<br>Blown fuse indication Power Economizing<br>Circuit. Auto Off for battery saving “Continuous<br>ON” feature in long duration measurement.<br>Free Test Certificate traceable to National<br>Standards | 4        |
| 2.      | Digital Multimeter | Accuracy :0.25% of measured value or more<br>Measurement: 3 3/4 digit Non-TRMS<br>DC current measurement ranges: 300 $\mu$ A to 10A<br>AC current measurement ranges: 3mA to 10A<br>AC voltage measurement ranges: 3V to 1000V<br>DC voltage measurement 30mV to 1000V<br>Resistance measurement: 30 $\Omega$ to 30M $\Omega$   | 2        |

|    |                   |   |   |
|----|-------------------|---|---|
|    |                   | Frequency measurement: 300 Hz to 100KHz<br>Capacitance measurement: 30nF to 30μF<br>Diode and continuity testing Auto ranging/<br>manual range selection Terminal protection for<br>over range, over voltage and current Protective<br>Rubber Holster for rough duty with stand facility<br>Storage and updation of MIN/MAX values<br>Auto Off.   |   |
| 3. | DC Analog meter   | 0 to 100 μA,Scale size 140mm or above<br>parallax mirror,Accuracy less than or equal to 1%  | 6 |
| 4  | DC Analog meter   | 0 to 10mA,Scale size 140mm or above parallax<br>mirror,Accuracy less than or equal to 1%  | 8 |
| 5  | DC Analog meter   | 0 to 25/50mA,Scale size 140mm or above<br>parallax mirror,Accuracy less than or equal to 1%   | 4 |
| 6  | Digital LCR meter | Display 3 1/2 digit LCD Display,Low Battery<br>Indication,Measurement Rate 2.5 times/sec or<br>greater Capacitance Range: 200 pF to 200mF with<br>0.1pF to 10μF,Resolution and Accuracy-+/-3% or<br>less,Test Frequency Range: 10Hz to 1KHz<br>Inductance Range: 200μH to 20H<br>Resolution Range :0.1μH to 10mH<br>Accuracy: +/- 5% or less<br>Test Frequency Range: 30 Hz to 1KHz<br>Resistance Range: 200Ω to 2000 MΩ<br>Resolution Range: 0.1Ω to 1MΩ<br>Accuracy: +/- 5% or less,Frequency Meter<br>Diode Test,DC Voltmeter Range: 20V | 1 |
| 7  | Energy meter      | 1-phase, 250V,10A, Electro-mechanical Induction<br>type /Electronic type  | 1 |
| 8  | Energy meter      | 3-phase, 415V,10A, Electro-mechanical Induction<br>type /Electronic type  | 1 |
| 9  | Analog Tachometer | Automatic range selection.Range 0-10000<br>rpm,least count 1,rpm,Reading time 5<br>seconds,Digital display  | 4 |
| 10 | UPF Wattmeter     | 1 ph (upf) Wattmeter 5/10A,125/250/500V; Scale  | 4 |

|    |                          |   |   |
|----|--------------------------|---|---|
|    |                          | length:140mm,Test Voltage:2000V AC (rms) for 1minute,Insulation Resistance 20 Megohms at 500V   |   |
| 11 | UPF Wattmeter            | 1 ph (upf) Wattmeter 2.5/5A,125/250/500V; Scale length:140mm,Test Voltage:2000V AC (rms) for 1minute,Insulation Resistance 20 Megohms at 500V   | 4 |
| 12 | Double element Wattmeter | Three Phase wattmeters current range 0-2.5/5A and potential range 0-250/500 V portable housed in laminated wooden cabinet with detachable lid, black bakelite panel fitted with anti-parallax mirror scale, knife edge pointer, rubber footings, locking arrangements   | 4 |
| 13 | AC Voltmeter             | 0-250/500V(MI); Scale length:140mm,Test Voltage:2000V AC (rms) for 1minute, Insulation Resistance 20 Megohms at 500V, DC. Rated Accuracy: Class – 1.0 (1% of full scale value) as per ISS 1248/84, between 20% and 100% of scale  | 4 |
| 14 | AC Ammeter               | 0-5/10A(MI); Scale length:140mm,Test Voltage:2000V AC,(rms) for 1minute, Insulation Resistance 20 Megohms at 500V,DC. Rated Accuracy: Class – 1.0 (1% of full scale value) as per ISS 1248/84, between 20% and 100% of scale  | 4 |
| 15 | Magenetic Flux Meter     | Measuring range : 103, 104 and 105Kilomaxwell turns with 100 % over range protection.<br>Indication : 3 1/2 digit panel meter with 12 mm LED. Resolution : 1 Kilo maxwell turn.<br>Accuracy : $\hat{A}\pm 0.5$ % of full scale. Input Resistance : 10 Kilo Ohms. Drift : Less than 0.5% of full scale per minute on 10'Kilomaxwell turns range. Output Voltage : 1 Kilomaxwell turns range. Input Power : 240 V, 50 Hz, 25 V<br>Output Resistance : 1 Kilo Ohms | 1 |