

## SOPHISTICATED TEST AND INSTRUMENTATION CENTRE (STIC)

(A joint venture of KSCSTE, Govt. of Kerala and Cochin University of Science & Technology, Kochi) Cochin University Campus, Cochin University P.O., KOCHI – 682 022, Kerala, India.

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Our Ref. No. STIC/SAIF/2024-25/FWT/Q 6

Date : 18-10-2024

From THE DIRECTOR

Competitive quotations are invited from Agencies for the supply of the following items to STIC. Suppliers may give their lowest rate with detailed terms and conditions for the supply and installation of the items.

ltem	Quantity	
1. Incubato	or – 130-140L	1 No
2. Benchtop	p pH Meter with Standard Electrode and temperature probe	1No
3. Benchtop	p Multiparameter meter with pH, mV, Conductivity, TDS,	1No
	ture Electrode probe and with Electrode Holder	
	iture Electrode probe and with Electrode Holder ions are given in Annexure 1	

Quotations in post or email must reach the Director, STIC, Cochin University PO., Kochi – 682 022, Kerala or e-mail at <u>fwt.stic@cusat.ac.in</u> r before 3.00 p.m. on <u>24.10.2024 (Thursday )</u>

**DIRECTOR, STIC** 

То

#### Annexure I

The specification of the instruments to be procured for the Food and water testing laboratory

#### 1. Incubator

Capacity Approx. 120L-130L

Temperature Range ambient 25 °C to +50°C

Temperature Control ±1°C

PID temperature controller

No. of Shelves - minimum 3 nos

The inner chamber and Shelves are made of stainless steel

Outside MS must be Epoxy coated and correction resistance

Number of doors (ea.) 1

The inner chamber should be fabricated with ribs for adjusting shelves to a convenient height and shelves to be supplied

Outside door Well-insulated

Display Digital display, required On-OFF switch and indicator

Safety measures as per the standard specifications

Electrical supply: 230VAC 50HZ Single Phase

Operation and service Manuel- should be supplied along with the instrument

Warranty and service – three-year comprehensive warranty which includes replacement of corrupt/ damaged part and labour

### 2. Bench top pH Meter with Standard Electrode and temperature probe

pH Range 0.00 to 14.00 pH

Resolution/Accuracy 0.01 pH / ±0.01 pH

mV Range ± 1600 mV

Resolution / Accuracy 0.1 mV/±1 mV No. of pH Calibration Points Up to 3 points Temperature Compensation Automatic (optional) Temperature Range 0 to 100 °C Temp Resolution / Accuracy 0.1 °C / ± 0.3 °C pH Electrode: Single junction pH electrode,1 m cable Temperature Probe can should be included

Warranty and service – three-year comprehensive warranty which includes replacement of corrupt/ damaged part and labour

# 3. Benchtop Multi parameter Meter with pH, mV, Conductivity, TDS, Temperature Electrode probe and with Electrode Holder

pH Meter General Requirement: pH Range 0 to 14.00 pH Micro controller based up to 5 point calibration for pH Resolution / Accuracy 0.01 pH / ± 0.01 pH mV Range : 0 - +1999.9 0.1 mV Resolution Temperature compensation : Auto / Manual Readout : 2 Line 20 character alphanumeric LCD Resolution / Accuracy 0.01 pH / ± 0.01 pH mV Range ± 2000 mV Resolution / Accuracy 0.1 mV/±1 mV Temperature : 0 to 100°C Conductivity Range 0.01 µS/cm to 200.0 mS/cm Resolution / Accuracy  $0.1 \,\mu\text{S}$  / ±1 % full scale

TDS Range 0.01 to 100 ppt @ 0.5 TDS factor

Resolution / Accuracy  $0.1 \text{ ppm} / \pm 1\%$  full scale

No. of pH Calibration Points: up to 5 Points

Buffer Options USA (pH 4.01, 7.00, 10.01, 12.45) / NIST (4.01, 6.86, 9.18, 12.45) with traceable certificate ( can be quoted s optional )

No. of Conductivity. Calibration Points (1 point per range)

No. of TDS Calibration Points 1 points (1 point per range)

Temp. Range 0.0 to 100.0 0°C / 32.0 to 212.0 0F

Resolution / Accuracy 0.10 °C / ± 0.10 C°C

Normalization 15.0 to 30.0 0C (adjustable)

Warranty and service – three-year comprehensive warranty which includes replacement of corrupt/ damaged part and labour