



College of Engineering, Pune

(An Autonomous Institute of Government of Maharashtra)

Department of Instrumentation and Control

Wellsely Road, Shivajinagar, Pune-411005, M.S, India

Tel.No:- 020-25507176/7350/7171 **Website:-** www.coep.org. in

Dear Sir,

Sealed Quotations are invited by the Department of Instrumentation and Control from reputed manufactures/ suppliers for the supply of the following item.

| | |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enquiry Number:- | COEP/Instru/Enq/Biomedical Lab/2017-18/ |
| Enquiry Date:- | 12 th October 2017 |
| Instrument Name & Qty:- | 1. <u>INCU Incubator Analyzer</u> <u>Qty</u> -01 Nos 2. <u>Infusion Pump Analyzer</u> <u>Qty</u> -01 Nos Technical Specification Annexure-A Attached |
| Location:- | Biomedical Lab |
| Quotation Submission Date & Time:- | Up to 30 th October 2017 @ 3.00pm |
| Quotation Opening Date & Time | 31 st October 2017 @ 3.30pm |
| Technical Quotation Opening Place:- | Seminar Hall, Ground Floor, Dept .of Instrumentation and Control |

Terms & Conditions:-

1. Fax and Email quotation are not acceptable.
2. **The taxes, insurance, freight, packing and forwarding charges if any be quoted in Indian Rupees separately.**
3. The rates shall be valid for 90days.
4. **Validity:** Quotation Validity at least 90 days from the due date.
5. The two parts of the offer should be placed in separate sealed envelopes clearly marked **“Technical Quotation” & “Commercial Quotation”** and the **Quotation Number, Quotation due date, Enquiry Number, Enquiry date and Enquiry due date** addressed to The Head, Department of Instrumentation and Control, College of Engineering Pune- 411 005.
6. Item quoted should confirm to the specification given the relevant catalogue/pamphlet / flyer should necessary accompany to the quotation.
7. Supplier should also submit authorization certificate if available.
8. 100% payment will be paid after satisfactory installation and commissioning.
9. Delivery Period should be mentioned clearly.

- 10. Delayed supplies:** The penalty conditions are applicable for the late delivery as per Institutional norms.
- 11.** Optional items should be quoted in separate sheet.
- 12. Training:** Suppliers need to provide adequate training at COE, Pune to the nominated person of COE, Pune at their cost. COE, Pune will not bear any training or leaving expenditure in this regard.
- 13.** The Director of College of Engineering, Pune reserves right to reject any one or all the quotation(s) without assigning any reasons therefore.

Annexure-A

Technical Specifications

1. INCUBATOR Analyzer

Qty:-01 Nos

- ✓ Simultaneous measurement of humidity, airflow, sound, and 4 independent temperatures
- ✓ Battery operated
- ✓ Adjustable measurement intervals
- ✓ Compatible with closed, forced-convection incubators and open infant warmers
- ✓ Stand-alone measurement or automated testing with PC
- ✓ Numerical and full-color graphical reports

Power supply: Maximum over-voltage 264 V ac

Input voltage: 230 V ac, Input frequency: 50 Hz

Battery: Rechargeable sealed lead-acid type NP7-6YUASA, 6 V, 7 Ah; low-battery alert

Charger: 600 mA minimum, 8 V ac/dc

Sound level: Measuring range- 30 dbA to 80 dbA, Resolution: 0.1 dbA

Accuracy: ± 5 dbA @ 30 dbA to 80 dbA

Relative humidity: Measuring range -0 % to 100 % RH, Resolution: 0.1 % RH

Accuracy: ± 5 % RH for 0 % to 90 % RH at 25 °C to 40 °C or ± 5.3 % RH for 0 % to 100 % RH at 25 °C to 40 °C

Temperature measurement: Measuring range -5 °C to 70 °C, Resolution: 0.1 °C, Accuracy: ± 0.5 °C + 1 LSB of range from 25 °C to 40 °C

Conduction: One sensor in contact with mattress

Convection: Inside the incubator Three sensors

Inside or outside the incubator: One sensor

Radiation: One sensor for radiation head that can be used also for external temperature

Airflow: Measurement range -0.1 m/s to 0.7 m/s, Resolution: 0.01 m/s

Accuracy: From 0.1 m/s to 0.5 m/s reading ± 0.1 m/s at temperature 25 °C to 40 °C and humidity 50 % RH ± 15 % RH

Internal memory: More than 1000 records
and relevant accessories

2. Infusion Pump Analyzer

Qty:-01 Nos

- ✓ Single channel
- ✓ Compatible with virtually any type of infusion device
- ✓ Real time snap shots of flow and pressure for immediate issue recognition
- ✓ Instantaneous and average flow measurement of up to 1500 ml/hr
- ✓ Occlusion pressure measurements to 45 psi
- ✓ Single-flow, dual-flow and PCA testing
- ✓ Built-in memory to save test results for printing or downloading to computer

Input voltage: 230 V ac, Input frequency: 50 Hz

Flow rate measurement Method: Flow is calculated by measuring volume over time

Range: 0.1 ml/h to 1500 ml/h

Accuracy: 1 % of reading ± 1 LSD for flows of 16 to 200 ml/h for volumes over 20 ml, otherwise 2 % of reading ± 1 LSD for volumes over 10 ml under laboratory conditions.
Volume measurement Method: Volume measured directly by the measuring module in minimum sample sizes of 60 microliters

Range: 0.06 ml to 9999 ml

Accuracy: 1 % of reading ± 1 LSD for flow rates of 16 ml/h to 200 ml/h for volumes over 20 ml, Otherwise 2 % of reading ± 1 LSD for volumes over 10 ml under laboratory conditions.

PCA bolus/dual flow measurement Method: Same as above Volume measurement method

Min bolus volume: 0.5 ml

Resolution: 60 μ l increments

Max test durations: 100 hours

Pressure measurement Method -back pressure and flow test

Range - 0psi to 45 psi or equivalent in mmHg and kPa

Accuracy: 1 % of full scale ± 1 LSD under laboratory conditions

Max test duration: 1 hour

Storage of results: Capacity 200+ tests

And relevant accessories

[To be submitted by Bidder - Letter Head]

Bidder Quotation Number & Date

Commercial Offer

To,
The Director,
College of Engineering, Pune

Subject.: Supply of INCU Incubator Analyzer and Infusion Pump Analyzer.
Ref.No.: COEP/Instru/Enq/Biomedical Lab/2017-18/1136 date- 12th October 2017

Sir,

I/We submit to our most competitive offer in response to a letter as referred above in accordance with the conditions of contracts. Our quotation is given below.

| Sr. No | Material Description with Make and Model | Qty | Unit Rate (Rs.) | Cost(Rs.) |
|----------------------------|------------------------------------------|-----|-----------------|-----------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| Sub Total (Rs.) | | | | |
| Taxes SGST | | | | |
| Taxes CGST | | | | |
| Other Charges if any (Rs.) | | | | |
| Total Cost (Rs.) | | | | |

PAN No:-.....

GST No.No:-.....

Signature:-.....

Name:-.....

Address:-.....

Affix Rubber Stamp:-.....