



**DEPARTMENT OF BIOTECHNOLOGY**  
**Indian Institute of Technology, Madras, Chennai, 600 036.**

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Telephone No.22574126, 22574101, FAX No.22574102

**Professor : GUHAN JAYARAMAN**

Date: 27.06.2019

**Ref: BT/GUHA/2019/006/SPL**

**Dt. 27.06.19**

**Due Dt. 19.07.19**

1. Quotations are invited in duplicate for the various items shown below/overleaf/ enclosed list.
2. The quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS & D Rate Contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the rate contract price. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for should be submitted free of charges and collected back at the supplier's expenses.
6. **Local Firms:** Quotations should be for free delivery to this Institute. If quotations are for Ex-Godown, delivery charges should be indicated separately.
7. **Firms outside Chennai:** Quotations should be for F.O.R Chennai. If F.O.R. Consigner stationer freight charges by passenger train/lorry transport must be indicated. If Ex-Godown, Packing, forwarding and freight charges must be indicated.
8. The rates of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales/General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes leviable should take into consideration that we are entitled to have concessional sales tax applicable to non-government educational institutions run with no profit motive for which a Concession. Sales tax certificates will be issued at the time of final settlement of the bill.**
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. **Payment:** Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

## **Technical Specifications for PCR Thermal cycler**

1. 96 wellx0.2ml PCR tubes/ 0.5 mL PCR tube
2. Gradient PCR, capable of testing 12 different temperatures simultaneously and a temperature gradient from 30-99°C, with minimum 0.1°C increment in gradient
3. Peltier based heating and cooling
4. Block temperature range: 4°C to 99°C
5. Lid Temperature range: 37 - 110 °C
6. Block Temperature Accuracy:  $\pm 0.2^{\circ}\text{C}$
7. Block Homogeneity:  $\leq \pm 0.3^{\circ}\text{C}$  (20°C to 72°C);  $\leq \pm 0.4^{\circ}\text{C}$  (90°C) H
8. Heating rate: 3 °C/s; Cooling rate: 2 °C/s
9. Customized programming allows a maximum of 20 steps and 99 cycles
10. Adjustable user defined ramp rate to meet sensitive experimental conditions
11. Administrator and user login with or without PIN for enhanced security
12. Inbuilt advance scheduling feature for users convenience will be a preference
13. Programmed templates for protocols
14. Programmable protocols
15. Auto Restart facility with user defined time interval after power failure and when power resumes. Also, instrument status must be displayed.
16. While the program is running, current status of the run and any technical message related to the run must be displayed.
17. Minimum two USB ports
18. Log book function for error messages and new calibration
19. E-mail Notification
20. Power save Standby function
21. Ethernet port
22. Advanced security features
23. Maximum power consumption: 700 W
24. Should have calibration certificate from reputed international agencies
25. Certificate from reputed organizations or institutions mentioning no hazardous chemicals are present in the instrument

26. Compatible UPS should be provided with minimum 1 hour backup
27. AMC terms and conditions beyond the warranty period should be specified
28. Two years warranty
29. Free installation
30. Should have supplied to IIT Madras or any reputed institute / company.
31. Should have COS – Certificate of Satisfactory performance.
32. Should have servicing facility in Chennai
33. Should have journal publication references.
34. Two bid system: separate technical and financial bids