



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

Telephone No.22574126, 22574101, FAX No.22574102

**Professor :MUKESH DOBLE**  
**Ref: BT/MUKE/2018/037/SPL**

**Dt. 31.12.18**

**Date: 31.12.2018**  
**Due Dt. 21.01.19**

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.

### **RT- qPCR SPECIFICATION REQUIREMENTS**

1. A Peltier / Rotor based automated (both real time and PCR analysis) thermal cycler with a maximum block ramp rate of greater than 6°C/sec with temperature uniformity resolution of 0.2°C - 0.4°C.
2. The instrument should have 96 well sample block (or) rotor sample tube slots, with compatibility to run standard 96 reaction samples with 0.2 ml PCR tubes or 8 well strips.
3. The System should be suitable for applications such as gene expression analysis, Pathogen detection & quantification, multiplexing and complete end point assays.
4. Instrument must contain optical detection with white LEDs (lifetime warranty) for excitation and CMOS/PMT type detector systems.
5. The reaction volumes should be of range with in a minimum of 10µl and up to 30µl.
6. The instrument should be capable of performing five individual programs in the same run, with minimum 5-plex multiplexing (up to 5 targets per well) including HRM analysis.
7. The System should be capable for detecting following dyes - SYBR Green, JOE, Texas Red, NED, TAMRA, HEX and FAM.
8. The system should be able to complete at least 40 cycle real time PCR reactions within 60 minutes with sensitivity demonstrated down to 1 copy.
9. A licensed data collection and analysis, user friendly instrument control software with multi-component algorithm should be included in the standard supply of the machine.
10. Analysis should be supported with a supply of a workstation with latest branded operating system, software, printer and other accessories.
11. Sample reagents, master mix, kits, compatible 96 well plates, strips and/or tubes should be provided with instrument.
12. The vendor should supply a suitable on-line UPS (Capacity: 2-KVA) to support the whole reaction during power failure.
13. The vendor should demonstrate and provide one day training on the operation of instrument and software during installation.
14. The vendor should provide 3-year warranty on Parts and labor for the instrument.
15. The Vendor should provide life time calibration for the instrument.
16. Two bid system: Separate technical bid and financial bid.