

**DEPARTMENT OF MICROBIOLOGY
UNIVERSITY OF DELHI SOUTH CAMPUS**

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UDSC/Microbio/RG-2014-15 Dated: April 17, 2014

Sealed quotations are invited (Preferably in Indian Rupees) for supplying and installation of following equipment's:

S.No.	Description & Specifications	Quantity
1.	<p>Specifications for Gradient Thermal cycler</p> <ul style="list-style-type: none"> • Gradient Thermal Cycler with Peltier heating and cooling based system. • Should have dual block of 2 x 48 x 0.2ml which can be independently controlled and both the blocks should be gradient • Blocks should have flexibility of interchanging the blocks with 96 well or 384 well • Should have a maximum ramp rate of 5°C/second and average ramp rate of 3.3°C/sec • Adjustable heated lid, block and calculated temperature control modes and should have protocol auto writer for easier programming • Should have a temperature range of 0-100°C and a temperature accuracy of ± 0.2°C • Should have a temperature uniformity of ± 0.4°C well to well within 10 seconds of arrival at 90°C and have 6 thermoelectric modules. • Should have a gradient range of 30-100°C and use dynamic ramping for gradient. • Should have a high resolution color display with multiple USB ports • Should have a memory of >1000 programs with further expansion through a USB Flash drive for transfer of files. • Option to protect files with optional log-in, restricted user privileges and secured mode for controlled environment should be there. • Should have automatic option for graphical or text based programming • The software should have exportable Run logs and system error logs • Option of using the instrument through a PC should be there • It should be possible to control additional 3 cyclers through one instrument. • Should be upgradeable to 5 Target Real Time PCR • Should be licensed and copy of the same to be attached • At least 2 years on-site parts and labor warranty and with 3 year's free service support • The instrument should be delivered to laboratory without any additional cost. 	1
2.	Fully Automated Microprocessor based Gas Chromatography system should be computer controlled Data workstation based with Digital and analog output. Built in detailed diagnostic function and Graphical user interface for viewing the parameter and real time chromatogram with following	1

<p>features:</p> <ul style="list-style-type: none"> • Microprocessor based modular GC system with Capillary Column, Injection Port with PPC/EPC/AFC flow Line Controller and High Sensitivity Flame Ionization Detector for operation on 220V / 50Hz • Automatic ignition and re-ignition of FID flame through keyboard or GC software, 30 meter capillary columns <p>COLUMN OVEN:</p> <ul style="list-style-type: none"> • Temperature Range – (Ambient + 10°C) to 400°C • Cooling Speed – 300°C to 50°C in less than 6 minutes or Better • Heating Rate – 120°C/min or better <p>INJECTOR: SPLIT/SPLITLESS INJECTION PORT</p> <ul style="list-style-type: none"> • Split / Splitless Injection Port with built-in PPC/EPC/AFC Flow Controller for digital setting and control of carrier gas pressure up to 600 kPa and above and total carrier flow up to 1000 ml/min • Temp. Range : up to 400°C <p>DETECTORS:</p> <p>FID Specification</p> <ul style="list-style-type: none"> • Temperature range : up to 400°C • Detection limit: 3 pgC/s • Dynamic range: 10⁶ or above <p>Columns & Spares</p> <ul style="list-style-type: none"> • 30m Capillary column & suitable column for FAME and fatty acid analysis • Inlet septa 50nos, O-rings 10nos, 10µl syringe 3nos, Split liners 6nos, Graphite ferrules 10nos, Column nuts 2nos, SS inlet seals 3nos <p>Accessories</p> <ul style="list-style-type: none"> • Gas Purification & Control Panel & Gas cylinder (47 liter gas) three stage for Zero Air, N₂ & H₂ Gas with two stage Cylinder Regulator with Brass Chromplated body with S.S. Diaphragm <p>WARRANTY: Instrument should be provided with an on-site warranty of 2 years from the date of installation.</p> <p>NOTE: All local accessories like Gas Cylinders with double stage regulators for H₂, N₂ & Zero Air, Gas Purification Panel, 10 µl Syringe to be quoted separately in INR only.</p> <p>The instrument should be delivered to laboratory without any additional cost.</p>	
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Sealed quotations (**Technical & Financial bid in two separate sealed envelopes**) should reach undersigned with all terms and conditions within 21 days after uploading of this advertisement.


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