



**DEPARTMENT OF BIOTECHNOLOGY
PANJAB UNIVERSITY CHANDIGARH 160014**

No...../DBT/PU

Phone:0172-2534085 (O), Fax : 0172-2541409

Dated:...../...../.....

To

The Director
Computer Science Department
P.U., Chandigarh

Dear Sir,

Kindly put this notice inviting quotation (NIQ) on the university website as desired by the chairperson, Deptt of Biotechnology, P.U., for **Multimode Plate Reader** with the following specifications:-

1. Monochromator bases system with following modes of measurement:
 - i) Absorbance – UV/Vis (Preferred range 230-830 nm)
 - ii) Fluorescence – Top and bottom reading
 - iii) Luminescence – end point and kinetic measurements
2. Plate format – 6 well, 12 well, 24 well, 48 well, 96 well and 384 well plate formats
3. On-board incubator – upto 45⁰C with shaking option.
4. Light source- Quartz-Halogen Lamp or Xenon Flash Lamp
5. Computer- with 64-bit windows 7, 4 GB RAM, 1 TB HDD, DVD writer and supporting analysis software
6. Analysis software with unlimited user license.
7. Online UPS with minimum 1 h backup
8. Consumables – 1 pack of 96 well plates for fluorescence bases experiments.
9. 3 years warranty on the machine.

The Performa Invoice in sealed envelope by Registered Post / Speed Post in the name of Chairperson, Deptt. of Biotechnology, Panjab University, Chandigarh, should reach by **31.10.14 at 5 pm. By hand Quotation / Invoice will not accepted.**

Thanking You,

Yours Sincerely

(Chairperson)



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Dear Sir,

Kindly put this notice inviting quotation (NIQ) on the university website as desired by the chairperson, Deptt of Biotechnology, P.U., for **Plant Growth Chamber** with enclosed specifications:-

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Plant Growth Chamber: Specifications

Size Approx 15 Cu.ft.

Ltr. Minimum 400 ltrs

Usage Space : minimum 700 x 900 x 650mm

Salient Features

Reliable.

Precise Control Of Environmental Parameters

Micro-processor based Controllers

Corrosion Resistant interior and exteriors

Energy Efficient

CFC free cooling

Low Maintenance

Light Weight

Technical Parameters For Plant Growth Chamber:

Temperature Control

Temperature Sensitivity \pm °C 0.5 or better

Spatial Deviation In Temperature \pm °C 0.5 or better

Readability °C 0.1

Temperature range °C 5°C to 60°C

Temperature Controller Solid State digital Controller/PID

Display LED/LCD

Adjustable alarm limits Optional With PID controller only

Water quality Distilled/Ionized

Safety thermostats

Temperature variation Adjustments 3 (With PID Controllers only)

Automatic temperature setting Yes (With PID Controllers only)

Adjustable limits Yes (With PID Controllers only) Light control

Light intensity (Chamber Top) Lux As Desired (optional feature)

Light intensity (Both Sides) Lux As Desired (optional feature)

Accessories

Timer (999 mins)

Program (Real Time)

Data Acquisition Program

Inspection window in door Optional

Water reservoir liters 8 ltr

Shelves

Standard 3

Maximum Permitted load per shelf Kg 25 Kg

Maximum Permitted total load Kg 75 kg

Accessories

Castors, lockable Yes

Power consumption

Nominal power W 950

Nominal voltage V 220-230 Volts, 50 Hz Single Phase

Frequency Hz 50 TOUCH SCREEN CONTROLLER 3.8 “

Temperature: - Heating (SSR)/ Cooling (Relay)/ Alarm

Humidity: - 0-95% Humidity (SSR)/ DE Humidity (Relay) / Alarm

Light: - 4 Output- 25/50/75/100%

24 Hours Temperature+Humidity profile



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Dear Sir,

Kindly put this notice inviting quotation (NIQ) on the university website as desired by the chairperson, Deptt of Biotechnology, P.U., for **Fluorescence Microscope** with enclosed specifications:-

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Specifications for Inverted Research Microscope

Microscope Body:	Trinocular Inverted Tissue Culture Microscope with Infinity corrected optical system with light path selector of 100:0, 0: 100 Pre-centred Phase Slider supplied with Phase Ring PHL and PH1, One Empty position for Brightfield, Extra Long working condenser Condenser (N.A.0.30mm, W.D. 75mm) (suitable for phase contrast /BF / Fluorescence), Universal Holder (it accepts all types of specimens holder like slide glass, terasaki plate, petridish, hemacytometer and culture flask).
Illumination	LED Illumination.
Eyepieces:	10X with F.O.V 22 and diopter adjustment facility on both eyes, anti fungus type,
Nosepiece:	Quintuple or more revolving nosepiece to accommodate atleast Five objectives at a time.
Objectives:	Long working distance & high N.A. objectives. ACHROMAT ADL 10X, ACHROMAT ADL 20x, SUPER PLAN FLUOR ELWD 60X
FLUORESCENCE	FLUORESCENCE UNIT TO HOLD ATLEAST 2 FILTERS AT A TIME WITH 130W/120W HIGH- PRESSURE MERCURY/METAL HALIDE ILLUMINATOR HAVING LIFE OF 2000 HRS OR MORE
FILTERS	BAND PASS FLUORESCENT FILTERS FOR FITC/GFP, TRITC/RHODAMINE, DAPI/HOECHST APPLICATIONS
CAMERA	2/3 " CCD CAMERA WITH RESOLUTION OF 5 MP OR MORE; FIREWIRE PORT TO ATTACH CAMERA TO COMPUTER FOR FAST TRANSFER OF IMAGES.
IMAGE ANALYSIS SOFTWARE:	IMAGE ANALYSIS SOFTWARE FOR IMAGE ACQUISITION, Z-STACK, MULTI-CHANNEL FLUORESCENCE, ANNOTATION, 2D / 3D VIEW, ND VIEWER FILTER, MORPHOLOGY, LARGE IMAGE, SEGMENTATION, AUTO-MEASUREMENT, REPORT GENERATOR FACILITY, DATA BASE, VECTOR LAYER & MULTI-DIMENSIONAL FILE FORMAT (ND FORMAT)
DATA COLLECTION AND PROCESSING UNIT:INTEL I5 PROCESSOR OR HIGHER PENTIUM PROCESSOR, 64 BIT, 8 GB RAM, CD READER/WRITER, 500GB OR HIGHER HDD, 19" TFT COLOR MONITOR , WIN 7 OPERATING SYSTEM, ALONG WITH UPS	
Note : Microscope, Camera and Software should be from same manufacturer for better compatibility and future upgradation possibilities.	
Microscope Should be ISO 14001, 9001 certified and with three years of warranty.	