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**EQUIPMENTS FOR BIOTECHNOLOGY LAB**

Ref: SB/ TC/ DBT/09 Dated 9<sup>th</sup> Sept. 2009

The following is the list of equipments and their required specifications. The last date for receipt of the quotations is 29<sup>th</sup> Sept. 2009 . We request you to send your lowest offer to the “THE SCIENTIST D, BIOTECHNOLOGY LAB, SPICES BOARD, NH BYE PASS, PALARIVATTOM , KOCHI 682 025.” in a sealed cover super scribing “ QUOTATIONS FOR EQUIPMENTS – BIOTECHNOLOGY LAB – DUE DATE 29-09-2009” .

S. No	Equipment	Qty	Particulars	Justifications
1	UPS -3 KVA	1	4 hrs, 12-15 no.s, 125 AH batteries	For uninterrupted power supply to PCR – Mycycler instrument
2	Electrophoresis Units (2 No.) with one power pack and combs	2	<b>See annexure 1 for specifications</b>	To conduct gel electrophoresis of 300 or more samples at a time which is required for PCR
3.	Rotor for ultracentrifuge model 6500 Kubota	1	Kubota, 2ml tubes Rpm 13,000	DNA isolation work to be done with 1.5 ml tubes.
4.	Mini centrifuge	1	Should include microtube and PCR strip tube rotors Should include 0.4 ml and 0.5 ml tube adaptors Maximum Speed should be 6000 rpm	For mixing microlitre quantity of DNA

Sd/-  
 Dr. Y. S. Rao  
 Scientist D

## Annexure 1

### **SPECIFICATION SUBMARINE ELECTROPHORESIS UNIT**

Cell Size [ Wx L x H]	: 29 x 40 x 9 cm
Gel Tray Size [LxW]	: 25 x 15 cm
Sample Throughput	: 24-192
Base Buffer Volume	: ~ 3 L

- ?? System should include tape free gel casting module for leak free operations.
- ?? System should include casting gates to allow hassle free casting of gels directly in the electrophoresis cells.
- ?? Should come with appropriate combs (26 wells and 51 wells) with comb holder
- ?? Should have replaceable electrodes for longer life of equipment.
- ?? System should have UV Transparent trays of above size with fluorescent ruler.

#### Power Supply for Submarine System

Output range (programmable): 10–300 V, fully adjustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 W maximum  
Type of output: Constant voltage, constant current with automatic crossover  
Output terminals: 4 pair recessed banana jacks floating in parallel  
Timer: 1–999 min, fully adjustable  
Safety compliance: EN–61010  
EMI: TÜV EMC certification  
Input protection: Fuse on both hot and neutral  
Input power (actual): 90–120 or 198–264 VAC, 50 or 60 Hz, auto switching