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**PDEU** PANDIT  
DEENDAYAL  
ENERGY  
UNIVERSITY

Formerly Pandit Deendayal Petroleum University (PDPU)



# SCHOOL OF ENERGY TECHNOLOGY

## Department of Biotechnology Engineering

### Name of Laboratory : BSL-3 and BSL-2

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## NAME OF EQUIPMENT : Bio Safety Cabinet

### TECHNICAL SPECIFICATIONS :

- **Model:** Esco Airstream Class II Type A2
- **Filter Type:** ULPA filter, 10x safer than HEPA
- **Air Inflow Rate:** Inflow- 105 fpm (0.53 m/s), Downflow- 60 fpm (0.30 m/s)
- **Airflow:** Recirculating or Exhausted with Canopy
- **Control System:** Real-time airflow monitoring with audible/visual alarms



## NAME OF EQUIPMENT : CO<sub>2</sub> Incubator

### TECHNICAL SPECIFICATIONS :

- **Model:** Thermo Scientific Forma™ Steri-Cycle™
- **CO<sub>2</sub> sensor:** IR sensor
- **Power supply:** 230 V, 50/60 Hz
- **Capacity:** 184 L
- **Chamber Material:** Polished Stainless Steel
- **Humidity source:** Water pan
- **Relative Humidity:** <90 % at 37°C
- **Temperature Range (Metric):** Ambient +5° to 50°C



## NAME OF EQUIPMENT : Deep Refrigerator

### TECHNICAL SPECIFICATIONS :

- **Model:** Thermo Scientific TDE Series TDE Series Ultra-Low Temperature Freezer
- **Capacity:** 549 L
- **Power supply:** 230 V, 50 Hz, 1 Phase
- **Warm up Time - 80 °C to -50 °C:** 271 minutes
- **Vial Capacity:** 40,000
- **No. of Racks:** 16
- **No. of Racks per Kit:** 4
- **Defrost:** Manual
- **Display:** HIC Interface, 7-Segment Display with capacitive touch screen



## NAME OF EQUIPMENT : Orbital Shaker

### TECHNICAL SPECIFICATIONS :

- **Model:** Thermo Scientific MaxQ 6000 Digital Orbital Incubator Shaker
- **Speed range:** 15-500 RPM
- **Temperature range:** + 10 °C to 80 °C
- **Material:** Stainless Steel Platform
- **Motor Type:** DC brushless
- **Timer Range:** Continuous or timed operation from 0.1 minute to 999 hours
- **Power supply:** 120 V, 60 Hz



## NAME OF EQUIPMENT : Refrigerated centrifuges

### TECHNICAL SPECIFICATIONS :

- **Model:** Thermo Scientific Sorvall ST Plus Series
- **Controller Type:** Microprocessor
- **Display:** Bright LCD Push-Button User Interface
- **Drive System:** Direct, Brushless Induction Low Profile
- **Rotor:** 13 Rotor Options Available
- **Run Time:** Up to 10 hours
- **Max. RCF:** 25,830 x g Fixed Angle (with 30 x 2 mL Rotor), 5,590 x g Swing-Out (with BIOShield 1000A Rotor)
- **Material:** Front, top and sides are out of plastic(PC-ABS) painted with 2K lacquer(PUR based), metal housing is out of cold rolled steel with powder paint(structured), centrifuge bowl is corrosion-resistant high thermal conductivity(STAINLESS STEEL 1.4301 COLD ROLLED). The unit feet are out of rubber.
- **Power Supply:** 208/240 V, 50/60 Hz

