

## SPECIFICATIONS FOR EQUIPMENTS FOR LABORATORIES UNDER IDSP

### Technical Specification for Elisa Reader/System

- A. Elisa Reader with built in printer and digital interface
1. Optical System
    - Digital light control.
    - 8/12 measurement channels plus 1 reference.
    - Single and dual wavelength measurement with facility for kinetic measurement.
    - 8s maximum measurement time.
    - Measurement Range 2.500 abs (400-700nm).
    - Indication Range 0-2.999 abs.
    - Accuracy 90.000-1.000 abs) Plus/Minus 2% and Plus/Minus 0.005 abs.
    - Resolution 0.001 abs.
    - Grating/Inbuilt (Tunable) Filters: Narrow band interference.
    - Essential 405 450 492 and 620 nm.
  2. Software
    - Storage of immediately preceding measurement.
    - At least 15 user programmable tests permanently stored.
    - Time programmable between each measurement.
    - Agitation programmable before each reading.
    - Bidirectional printer interface.
  3. Measurement modes and time).
    - Plate shaking mode for sample mixing (selectable speed and time).
    - Flexible blank mode setting.
    - Matrix Modes: Matrix-/x/t, Matrix-/0-0. (Range), Matrix-/f/ (floating cut off).
    - Difference Mode: Absorbance of each well in even numbered subtracted from those of odd numbered columns.
    - Curve fir Modes: LIN/LIN.LIN/LOG.LOG/LOG or auto curve transformation with ability to add the standard curve;
    - 8 to 12 way string orientation or kinetic modes.
    - Table of optical densities, Delta DD. Graphic, Reaction rate/V-Max.
  4. Other
    - Adjustable for different micro plate geometrics.
    - Halogen Lamp 20-40 W with pre-failure warning 16 digit alphanumeric florescent display.
    - Membrane keyboard.
    - 3-8 standards in single or duplicate wells.
    - Dust proof enclosure.
  5. Supply
    - 230V+/-10V, 50HZ AC single phase UPS for 30 min backup with maintenance free battery.
  6. Accessories
    - Halogen Lamps X 2.
    - Thermal print paper X 10.
    - Dust cover.
    - Set of pipettes consisting of single channel variable volume color pipettes 0.5-10ul, 5-40 ul, 40-200ul, 200-1000 ul.
    - 8 channel variable column color multi channel pipettes 5-50 ul and 50-300 ul.
    - Pipettes should offer easy in lab calibration quick tip ejection click volume setting and high accuracy and precision.

B. Elisa Plat washer (Automatic)

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|----|-------------|---|
| 1. | General     | Auto strip washer for all 96 well plates 1 X 8 strips/ 1 X 12 strips.   |
|    |             | Dispensable volume 25-300 ul. Soaking time 1-6000 sec. Aerosol shield for user safety.                                  |
| 2. | Supply      | 230 V+/- 10V, 50Hz.   |
| 3. | Accessories | 8/12 Channel manifold, all tubing sets, wash. Rinse waste bottles, maintenance kit, vacuum filter, Operational manual.  |
| 4. | Standards   | The apparatus should be EYL and CE Certified or should conform to equivalent product testing 7 certification standards. |

**General Requirement**

- Warranty: Two years warranty and thereafter five years comprehensive maintenance contract (CMC)
- User/Technical/Maintenance manuals in English to be supplied.
- List of important spare parts and accessories with their part number and costing.
- Certificate of calibration and inspection from factory.
- Attach original manufacture's product catalogue and specification sheet. Photocopy/computer print will not be accepted. All technical data to be support with original product data sheet.
- Satisfactory working of quoted model from institutions of repute.

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### Technical Specification for Deep freezer (-20 degree C)

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|----|---------------------|---|
| 1. | General             | Vertical type with twin door and adjustable shelves.<br>Capacity: 250 to 300 liter.<br>Temperature -20 °C Celsius<br>Accuracy +/- 1 degree Celsius<br>Must be able to perform at an ambient temperature of 40°C Celsius, user friendly, non-CFC refrigerant.  |
| 2. | Temperature<br>20°C | For recording temperature-Tolerance limit (-) 8°C to (-)  |
| 3. | Lower Supply        | 230+/- 10 volts; 50 Hz.   |
| 4. | Voltage Stabilizer  | Microprocessor control, digital display with battery backup and alarm signal should be there.   |
| 5. | General             | CE, ISO 9001, IS 13485 marked or equivalent.<br>User/Technical/Maintenance manuals to be supplied.  |
| 6. | Requirements        | List of important spare parts and accessories with their part, accessories with their part, number and costing.<br>Certificate of calibration and inspection from factory.<br>Attach original manufacture's product catalogue and specification sheet. Photocopy/ computer print will not be accepted. All technical data to be supported with original product data sheet. Satisfactory working of quoted model from institutes of repute. |

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## SPECIFICATIONS FOR EQUIPMENTS FOR LABORATORIES UNDER IDSP

### Technical Specification for Autoclave

Sl. No.	Particulars	Minimum Specifications
1	Features	Vertical type: Inner chamber and lid made of stainless steel. Radial locking system, pressure gauge thermometer, safety valve, release valve, water level indicator, stainless steel basket, water outlet, mains indicating lamp and paddle lifting device. Automatic low water cut-off device.
2	Capacity	90+/-5litres.
3	Pressure	1 to 1.5 Kg per sq. cm.
4	Temperature	110°C and 140 and 140°C-adjustable in steps of 1°C, digital type thermometer with timer.
5	Power Supply	230+/-10 Volts. 50Hz. single phase.
6	Surface treatment and power coating	All the mild steel section shall be degreased, de-rusted, phosphate powder coated.
7	Standard:	The apparatus should conform to IS 14345:1996 with latest amendments or equivalent international standards covering, markings, safety requirements with recommendations of safe operations.
8	Installation, commissioning will be the responsibility of the supplier.	

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