

SPECIFICATIONS OF ELECTRONICS INSTRUMENTATION LAB EQUIPMENTS

SL NO	NAME OF ITEM
1	<p>diode thermometer: One number of water bath with heater / Heat Plate. Heater coil voltage is 0-230VAC One number of RTD, Thermocouple & diode temperature sensor for temperature sensors . Provision to fix the sensors in water bath /heat plate Necessary signal conditioner circuit. One number of Variable AC Power Pack is provided to energize the Heater coil voltage of 0-230VAC Test points for signal conditioner circuit output voltage measurements Digital LED/LCD meter to indicate the output voltage & temperature in degree All are mounted on a nice cabinet with power on/off switch .</p>
2	<p>LVDT : One number of LVDT Set up with Linear scale for displacement measurements LVDT Specifications LVDT Sensor with micrometer Range : 0-25mm Displacement calibration Range: +/- 10mm Output Voltage : 0-2V 9 pin Connector is provided for LVDT sensor interface Inbuilt sine wave generator for LVDT coil excitation One number of op-amp signal conditioner circuit is provided for LVDT Output voltage signal conditioning. One number of potentiometer is provided to adjust the signal conditioner off set voltage adjustments One number of potentiometer is provided to adjust the signal conditioner Gain voltage adjustments Test points are provided (more than 10) in signal conditioner circuit for Waveform measurement in CRO/Multimeter One number of LCD type display with controller is provided for output Displacement indications All are mounted on a nice cabinet with front panel PCB Necessary Circuit/Block diagram is printed on the front panel PCB for easy understanding the circuit 230vac input with power ON/Off switch and Indications</p>
3	<p>Strain gauge: One number of strain gauge set up (sensor , Cantilever beam & load (dead weight) with Mechanical arrangement for loading different dead weight Specifications : Range : 0-1kg Output Voltage : 0-2V 9 pin Connector is provided for sensor interface One number of op-amp signal conditioner circuits is provided for strain gauge Output voltage signal conditioning. One number of potentiometer is provided to adjust the signal conditioner off set voltage adjustments One number of potentiometer is provided to adjust the signal conditioner Gain voltage adjustments Test points are provided (more than 10) in signal conditioner circuit for Waveform measurement in CRO/Multimeter One number of LCD display with controller is provided for output voltage indications, weight in kg & strain value All are mounted on a nice cabinet with front panel PCB Necessary Circuit/Block diagram is printed on the front panel PCB for easy understanding the circuit 230vac input with power ON/Off switch and Indications</p>

4	<p>Pressure transducer: Pressure sensor –Strain gauge / Pie co electric based, capacity 0-6 bar Pressure chamber with Dial gauge &Foot air pump. Op-amp based Precise Signal conditioning Functional blocks indicated on board mimic On board Digital meter is provided to indicate Pressure value Analog Pressure Gauge: 0 to 100 psi is provided in tank to measure Tank pressure Pressure Vessel: 0 to 100 psi &Safety Valve: 0 to 100 psi Hoses: 1.5 m &Foot Pump: 0 to 150 psi All are mounted on a nice cabinet with Power ON/OFF switch 230VAC Input</p>
5	<p>Photocells: Transducers: 4 Nos (Photoconductive Cell / Photovoltaic Cell / Phototransistor / PIN Photodiode) Interconnections: 2 mm banana sockets (Gold plated) Power Consumption: 2 VA (approx) Light Source : Filament Lamp Output Circuits : Digital Voltmeter / Relay / LED Signal Conditioning Circuitry : Power Amplifier / Current Amplifier/ DC Amplifier / Comparator / Electronic Switch /Buffer</p>
6	<p>Digital LCR meter, Frequency synthesizer, Spectrum analyzer and Logic State analyzer: Digital LCR meter Type of Product Digital LCR Meter & Model No-LCR-4070 Display 3½ Digit Display Counts 2000 Inductance Range 200μH - 20H Inductance Accuracy ±(2.0% + 5) Capacitance Range 200pF - 2000 μF Capacitance Accuracy ±(2.5% + 5) Resistance Accuracy ±(0.8% + 2) Sampling Rate 3 times per second Dimensions 185x93x35 mm Resistance Range (Ohm) 20Ω - 20 MΩ PC based Oscilloscope (Spectrum analyzer and Logic State analyzer): 2-channel 100MSPS 14-bit differential input oscilloscope 2-channel waveform generator 16-channel logic analyzer 16-channel digital pattern generator ±5VDC power supplies Spectrum analyzer Network analyzer & Voltmeter Digital I/O & Now supported by MATLAB / MATLAB student edition</p>