

Annexure - II**ELECTRONICS LAB**

Sl. No.	Equipment / Component	Qty.
1.	DC Power Supply: Rating: linear +5 V fixed / 3A x 1 and 0-30 V/ 3A x 2 , Series - parallel operation, Ripple \leq 1 mv (rms), Digital Ammeter & Voltmeter	4
2.	Digital Multimeter 3 & $\frac{3}{4}$ digit true rms	12
3.	Digital Storage Oscilloscope: 100MHz, 2Ch, color TFT display	1
4.	CRO 30 MHz	5
5.	Function Generator: 10 MHz sine, triangle, square, TTL o/p	5
6.	40 MHz Function / Arbitrary Waveform Generator: 1 Ch	1
7.	Digital Trainer Kit 1. Logic Gate – AND, OR, NOT, NAND, NOR, XOR 2. Multiplexer & Demultiplexer 3. Counter 4. The Schmitt Trigger 5. AC / DC Power Supplies 6. Clock & Function Generator 7. Breadboard 8. Two digits of 7-segment LED Display 9. 4 Digits Digital Voltmeter 10. Potentiometer Module 11. 8-bit LED Indicators	10
8.	Register Trainer	1
9.	Flip Flop trainer	1
10.	Astable Multivibrator trainer	1
11.	Monostable Multivibrator trainer	1
12.	8-bit Digital to Analog Converter trainer	1
13.	8-bit Analog to Digital Converter trainer	1
14.	Trainer on Voltage to Current & Current to Voltage Converter using Op Amp	1
15.	Diode Characteristics trainer	1
16.	Zener Diode Characteristics trainer	1
17.	BJT CE Amplifier trainer	1
18.	FET Characteristics trainer	1

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19.	Transistor Characteristics trainer (PNP/NPN)-CB	1
20.	Transistor Characteristics trainer (PNP/NPN)-CE	1
21.	Transistor Characteristics trainer (PNP/NPN)-CC	1
22.	RC Coupled Amplifier trainer	1
23.	Half Wave Rectifier trainer	1
24.	Full Wave Bridge Rectifier trainer	1
25.	Common Collector Amplifier trainer	1
26.	BJT Amplifier with and without Negative Feedback trainer	1
27.	Transistorised Series Voltage Regulator trainer	1
28.	Transistorised Shunt Voltage Regulator trainer	1
29.	Small Signal FET Amplifier trainer	1
30.	Wein Bridge Oscillator trainer	1
31.	RC Phase Shift Oscillator trainer	1
32.	Hartley Oscillator trainer	1
33.	Colpitts Oscillator trainer	1
34.	Characteristics of UJT trainer	1
35.	UJT as a Relaxation Oscillator trainer	1
36.	Characteristics of MOSFET trainer	1
37.	Characteristics of CMOS Trainer	1
38.	SCR Characteristics Trainer	1
39.	SCR firing ckt Trainer	1
40.	Transformer : Pri 230 V, Sec 6-0-6 V, 1A	10
41.	Transformer : Pri 230 V, Sec 6-0-6 V, 2A	5
42.	Transformer : Pri 230 V, Sec 12-0-12 V, 1A	5
43.	Pulse Transformer (ratio1:1:1)	50
44.	Diode: 1N4007 1N5818 1N4148	300 100 100
45.	Optocoupler MCT2E	50
46.	Photodiode QSD2030	50
47.	IR Phototransistor QED123 QSD124	30 30
48.	Transistor: BC547 CL100 2N4351 ULN2003	150 50 50 20

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49.	UJT: 2N2646	50
50.	Op-Amp: 741 324	200 50
51.	SCR 2N6565	100
52.	DIAC DB3	50
53.	TRIAC : BT139	50
54.	LED (3 mm) : Red x 100 + Green x 100 + Amber x 100 LED (5 mm) : Bi-color	300 50
55.	Common Anode Display : E1-1100AHR1	50
56.	Microcontroller AT89C51 AT89C52	30 30
57.	Logic Gate: 74LS08 74LS00 74LS32 74LS02 74LS04 74LS06 74LS86 74LS14 74LS50	30 30 30 30 30 30 30 30 30
58.	Flip-Flop: 74LS279 74LS75 74LS76	30 30 30
59.	Register: 74LS194 74LS165	30 30
60.	Counter: 74LS90 74LS193	40 40
61.	Decoder: 74LS45	30
62.	BCD to 7 Segment Decoder – 74LS47	30
63.	Priority Encoder: 74LS148	30
64.	Multiplexer: 74LS150	30
65.	Demultiplexer: 74LS154	30
66.	Adder: 74LS83	30
67.	Timer: 555 7555	50 20

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68.	ADC: 0804	20
69.	DAC: 0800	20
70.	Resistance: 47 Ω , $\frac{1}{4}$ w 47 Ω , $\frac{1}{2}$ w 100 Ω , $\frac{1}{4}$ w 100 Ω , $\frac{1}{2}$ w 240 Ω , $\frac{1}{4}$ w 470 Ω , $\frac{1}{4}$ w 1 K Ω , $\frac{1}{4}$ w 2.2 K Ω , $\frac{1}{4}$ w 4.7 K Ω , $\frac{1}{4}$ w 6.8 K Ω , $\frac{1}{4}$ w 10 K Ω , $\frac{1}{4}$ w 47 K Ω , $\frac{1}{4}$ w 100 K Ω , $\frac{1}{4}$ w 240 K Ω , $\frac{1}{4}$ w	200 200 200 200 200 200 200 200 200 200 200 200 200 200
71.	Potentiometer $\frac{1}{2}$ watt (18STS) for bread board 50 Ω 100 Ω 500 Ω 1 K Ω 5 K Ω 10 K Ω 50 K Ω 100 K Ω	100 100 100 100 100 100 100 100
72.	Multi-turn Potentiometer 25 turn, 1K Ω , $\frac{1}{2}$ watt (18MPT) for bread board 25 turn, 5K Ω , $\frac{1}{2}$ watt (18MPT) for bread board 10 turn, 5 K Ω , 2 watt (18PTT)	100 100 10
73.	Capacitance 150 pF, 100V 0.001 μ F, 100 V 0.01 μ F, 100 V 0.047 μ F, 100 V 0.1 μ F, 100 V 0.47 μ F, 100 V 1 μ F, 100 V 10 μ F, 100 V 100 μ F, 100 V 1000 μ F, 63 V	100 100 100 100 100 100 100 100 100 100
74.	VCO : 8038	20
75.	Regulator LM317 with heat sink LM337 with heat sink	30 30
76.	Single core wire for breadboard: 23 SWG (Red-2 coil, Green-2 coil , Blue-2 coil)	6 Coil

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77.	Automatic Wire Stripper/Cutter: Self-adjusting stripper for wire sizes 26 to 16 SWG	5
78.	Breadboard: wish board 174mm x 67mm	25
79.	Veroboard: 100.84 mm x 162.56 mm, 1792 holes	10
80.	Soldering Iron : 25W soldron 35W soldron	15 10
81.	Resin cored solder wire (22 SWG)	500 gm
82.	Desoldering wire	10 pack

Note: Equivalent Specifications for Electronic Components will be accepted.