

<b>Name of the Faculty</b> <b>Discipline</b> <b>Semester and Subject Lesson Plan Duration</b> <b>Work Load (Practical) per week (in hours)</b>		<b>Heena Rani</b> <b>Computer Engg</b> <b>1<sup>st</sup> , Electronics workshop</b> <b>16 Weeks</b> <b>Practical-12</b>	
<b>Week</b>	<b>Practical</b>		
	<b>Practic al Day</b>	<b>Topic</b>	<b>Groups</b>
1st	Day 1 Day 2	Concept of Resistors, Color Coding, Tolerance, Maximum power rating, Application of LDR.	G 1 & G 2
	Day 3 Day 4	Classification of Capacitors, Coding of capacitors-using numerals, directly printed values on capacitors, Ceramic capacitor and Electrolytic capacitor.	G 1 & G 2
2nd	Day 1 Day 2	Concept of Inductors.	G 1 & G 2
	Day 3 Day 4	Testing of components using Multi meter/LCR Q-meter.	G 1 & G 2
3rd	Day 1 Day 2	Identify different types of soldering guns and practice soldering of different electronic.	G 1 & G 2
	Day 3 Day 4	Join the broken PCB track and test.	G 1 & G 2
4th	Day 1 Day 2	Practice de-soldering using pump and wick.	G 1 & G 2
	Day 3 Day 4	Prepare component for soldering.	G 1 & G 2
5th	Day 1 Day 2	Demonstrate soldering and de-soldering using soldering and de-soldering stations.	G 1 & G 2
	Day 3 Day 4	Identify different types of mains transformers and their testing. Identify the primary and secondary transformer windings and test the polarity.	G 1 & G 2
6th	Day 1 Day 2	Identify different sizes, shapes of cores used in low capacity transformers. Measure the primary and secondary voltage of different transformers.	G 1 & G 2
	Day 3 Day 4	PN junction diode: Terminal Identification, setting on bread board and testing. Zener diode: Terminal Identification, setting on bread board and testing.	G 1 & G 2
7th	Day 1 Day 2	LED, Photo diode :Terminal Identification, setting on bread board and testing. Integrated Circuits (ICs) like 7404, 7408, 7432, 7805, 555, 741: Pin diagram, Identification, setting on bread board and testing.	G 1 & G 2
	Day 3 Day 4	Switches, Application of Toggle, Rotary, push to on & push to off .Relays and application of General purpose relay.	G 1 & G 2

8th	Day 1 Day 2	Power Supply, DC power supply, Concept of Dual power supply. Cathode Ray Oscilloscope (CRO), CRO probes, Front panel controls, AC/DC voltage measurement, Frequency measurement, wave form generation.	G 1 & G 2
	Day 3 Day 4	Function Generator, Front panel controls, Functions: sine wave, square wave, triangular wave and Amplitude measurement. Digital Multi Meter, Front panel controls of DMM.	G 1 & G 2
9th	Day 1 Day 2	Study of AC and DC Waveforms. Construction of various electronic circuits on breadboard Circuits like: rectifiers, filter circuits, clipper, clamper, transistor amplifiers, logic gates, LED driver circuit, power supply, etc.	G 1 & G 2
	Day 3 Day 4	Testing of outputs of various electronic circuits using test Equipment.	G 1 & G 2
10th	Day 1 Day 2	AC and Electrical Cables. Identify the Phase, Neutral and Earth on power Socket.	G 1 & G 2
	Day 3 Day 4	Construct a test lamp and use it to check mains.	G 1 & G 1 &
11th	Day 1 Day 2	Use a Tester to monitor AC power.	G 1 & G 2
	Day 3 Day 4	Measure the voltage between phase and ground and rectify earthing.	G 1 & G 2
12th	Day 1 Day 2	Identify and test different AC mains cables.	G 1 & G 2
	Day 3 Day 4	Skin the electrical wires /cables using the wire stripper and cutter.	G 1 & G 2
13th	Day 1 Day 2	Prepare the mains cable for termination.	G 1 & G 2
	Day 3 Day 4	Measure AC and DC voltages using multi meter.	G 1 & G 2
14th	Day 1 Day 2	Replace the fuse, battery for the given multimeter.	G 1 & G 2

	Day 3 Day 4	Revision	G 1 & G 2
15th	Day 1 Day 2	Revision	G 1 & G 2
	Day 3	Revision	G 1 &
16th	Day 1 Day 2	file check	G 1 & G 2
	Day 3 Day 4	internal practical	G 1 & G 2