Electronic Workshop: Theory

Unit:1- Introduction to basic Electronic Components

Study of passive components such as Resistance, Capacitor, Inductor and its types. Introduction of Active components such as Diode, Transistor and MOSFETS.

Unit:2-Priented Circuit Boards

Introduction, Preparation of single sided PCB, Soldering Techniques, PCB fabrication Process: Etching, cleaning, drying and drilling.

References:

Raghbir Singh Khandpur: Printed circuit Boards: Design, fabrication, Assembly: McGraw-Hill Electronic Engineering-2006

Electronics Workshop: Practical

1. Study and Identification of electronic components active & passive.
2. To measure the resistor value by color code and verify the same using multimeter
3. To identify different inductors and measure the values using LCR meter.
4. To identify different capacitors and measure the values using LCR meter.
5. Implement any small electronic circuits using active & passive components on PCB
6. Execute soldering & de-soldering of various electrical components for electronic circuits.
7. Verify operation, truth table of basic logic gates and universal logic gates.
8. Execute repairs of any household electronic appliance such as Home Inverter
9. Testing of electronic circuits and its use in Mobile Phone
10. Getting overview of PCBs available in PC & Laptop.

Note: Minimum 8 practicals are expected to performed but not limited to above mentioned list.