

Machakos University College
School of Engineering and Technology
Department of Electrical and Electrical Engineering
Supplementary Examinations Diploma in Electrical and Electrical Engineering
EED 107 Laboratory Practice II

Instructions: Answer all the five Questions

1. With the aid of well labeled diagrams. Show the following electronic parts and their symbols and explain the operation:-
 - a. Antenna
 - b. Diodes
 - c. Integrated circuits
 - d. Transistors
 - e. Transformer (2 0marks)
2. Using the resistor colour coding concept, show the values of the following resistors
 - i. Brown, Green Red, Gold
 - ii. White, yellow, green blue silver
 - iii. Blue, violet, red, green and brown. (10 marks)
 - b. Show the colours of the following resistors:-
 - i. 55K3
 - ii. 4R7
 - iii. 789M (10 marks)
3.
 - a. With the aid of well labeled diagrams, draw **five** types of hand tools explaining how they are used. (10 marks)
 - b. State two precautions that must be considered when handling each of the five tools stated in (a) above (10 marks)
4. Explain the procedures that must be followed when identifying the following electronic component in a lab practice class.
 - i. Base
 - ii. Emitter
 - iii. Collector
 - iv. NPN
 - v. PNP (20 MARKS)
5.
 - a. State and explain **five** laboratory practice rules and precautions that students must adhere to when performing electronic experiments. (10 marks)
 - b. State and explain **five** critical rules that must be followed soldering electronic components on a PCB. (10 marks)