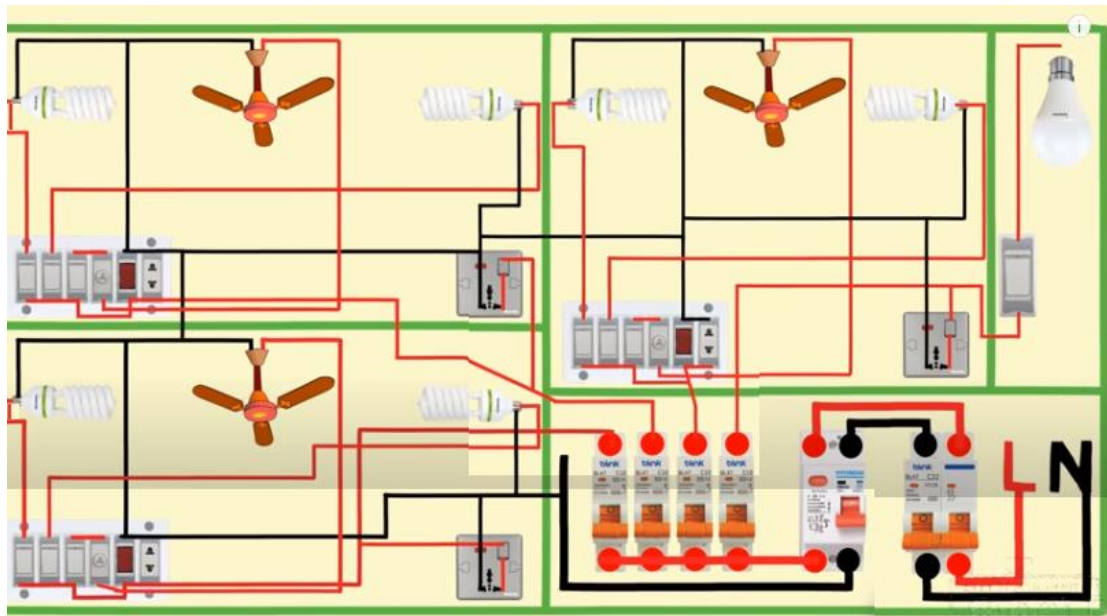


Ministry of high Education and Scientific Research
Middle Technical University
Electrical Engineering Technical College

Training package
in
Workshops
(Electrical establishments)

For
Students of first class
Department of Medical Instrumentation Techniques Engineering



By

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**Electrical
establishments**



30_2th

**modular
modular
units**

1/ Overview

1 / A –Target population :-

For students of first class

Department of Medical Instrumentation Eng. Techniques

1 / B –Rationale :-

This unit introduces principles of electrical establishments in the workshop

1 / C –Central Idea :-

The major topics discussed in this unit are included in the following outline.

- **Electrical establishments**

2/ Performance Objectives :-

After studying the first modular unit, the student will be able to-

1. Electrical establishments

3/ Pre test :-

Circle the correct answer:-

- 1. A unit used to measure electric current**

a- Ampere

b- voltage

c- watt

d- all above

- 2. A device that connects and disconnects the flow of electric current in a circuit.**

a- holder

b- switch

c- circuit breaker

d- All above

4/ the text :-

➤ Electrical establishments

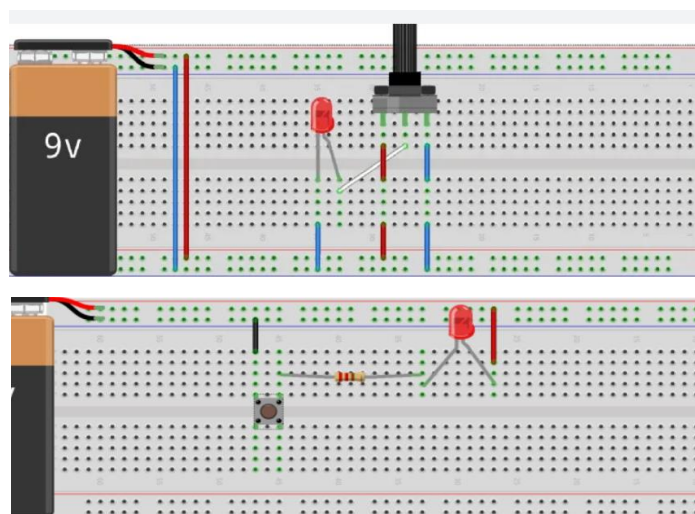
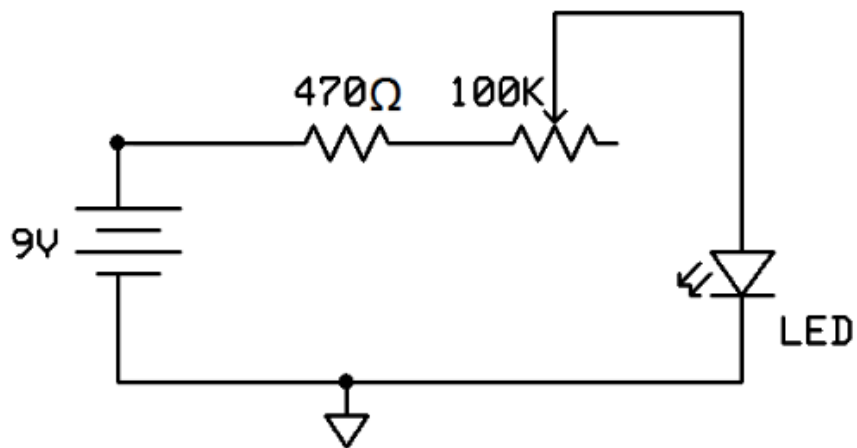
I. Led circuit with potentiometer

Connect the circuit below

Components Needed

9-Volt Battery
Protection Diode
470 Ω resistor (or any resistor within this proximity)
100K Potentiometer
A LED

The schematic of the circuit is shown below:



5/ Post test :-

Circle the correct answer:-

1- Material used to cover electric wire, which may be made from plastic.

- a- insulator
- b- switch
- c- holder
- d- all above

2- Is used to protect and cover live or open wires.

- a- Electrical tape
- b- Switch
- c- holder
- d- insulator

3- Used to connect and disconnects the flow of electric current in a circuit.

- a- switch
- b- holder
- c- a and b
- d- circuit breaker

6/ key answer :-

1- Pre test :-

1. a
2. b

2- Post test :-

1. a
2. a
3. a

7/References :-

1. Encyclopedia of Electronic Components Volume 1 (Charles Platt).
2. <https://www.electricaltechnology.org/2013/03/how-to-remember-direction-of-pnp-and.html>