

## CHAPTER-3 | Electricity – Circuits and their Components

QUIZ  
PART-04

1. What does LED stand for?

- A. Light Energy Device
- B. Low Energy Diode
- C. Light Emitting Diode
- D. Light Electrical Display (C)

**Explanation :** LED stands for Light Emitting Diode, which gives off light when electricity flows through it.

2. When does an LED give off light?

- A. When it is heated
- B. When electricity flows through it
- C. When air flows around it
- D. When connected to water (B)

**Explanation :** An LED emits light when electric current passes through it.

3. Which part of an LED protects it from damage?

- A. Metal tip
- B. Plastic dome
- C. Long wire
- D. Short wire (B)

**Explanation :** The plastic dome covers and protects the LED.

4. How many terminals does an LED have?

- A. One
- B. Two
- C. Three
- D. Four (B)

**Explanation :** An LED has two terminals: a positive terminal and a negative terminal.

5. Which leg of an LED is connected to the positive terminal of the battery?

- A. Short leg
- B. Bent leg
- C. Thicker leg
- D. Longer leg (D)

**Explanation :** The longer leg of the LED is connected to the positive terminal of the battery.

6. What happens if the legs of an LED are connected in reverse?

- A. It glows brighter
- B. It glows dimly
- C. It does not glow
- D. It produces heat (C)

**Explanation :** LED is a one-way device and does not glow if connected in reverse.

7. Which statement correctly compares LED and incandescent lamp?

- A. LED gets hotter than incandescent lamp
- B. LED wastes more energy
- C. LED is energy efficient and long lasting
- D. LED works only at high voltage (C)

**Explanation :** LEDs are cool, energy efficient, and last longer than incandescent lamps.

8. How does an incandescent lamp produce light?

- A. By movement of electrons
- B. By heating a filament
- C. By chemical reaction
- D. By reflection of light (B)

**Explanation :** An incandescent lamp produces light by heating a thin filament.

9. Which material is required to light up an LED in an activity?

- A. Bulb and holder
- B. LED, cells, and wires
- C. Switch and fan
- D. Transformer and plug (B)

**Explanation :** The activity requires an LED, cells (or AA cells), and wires or paper clips.

10. Which of the following is TRUE about LEDs?

- A. They work in both directions
- B. They need high voltage to glow
- C. They get very hot
- D. They glow only when connected correctly (D)

**Explanation :** LEDs glow only when current flows in the correct direction.