

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

QUIZ  
PART-07

1. What is a circuit diagram?

- A. A real photograph of a circuit
- B. A colourful picture of wires
- C. A simple drawing showing how components are connected using symbols
- D. A diagram without any symbols (C)

**Explanation:** A circuit diagram is a simple drawing that shows how components are connected in an electric circuit using standard symbols.

2. Why are standard electrical symbols used in circuit diagrams?

- A. To make diagrams colourful
- B. To reduce the size of wires
- C. To help people around the world understand circuits easily
- D. To avoid using batteries (C)

**Explanation:** Standard symbols help people from different countries and industries understand circuits easily.

3. Which organisations create standard electrical symbols?

- A. WHO and UNICEF
- B. IEC, ANSI, and IEEE
- C. ISRO and NASA
- D. WHO and UNESCO (B)

**Explanation:** International organisations like IEC, ANSI, and IEEE create standard electrical symbols.

4. In the symbol of an electric cell, what does the longer line represent?

- A. Negative terminal
- B. Positive terminal
- C. Wire
- D. Switch (B)

**Explanation:** In an electric cell symbol, the longer line represents the positive terminal.

5. What does the shorter line in an electric cell symbol indicate?

- A. Positive terminal
- B. Wire
- C. Switch
- D. Negative terminal (D)

**Explanation:** The shorter line in an electric cell symbol represents the negative terminal.

6. What does the arrow in an LED symbol show?

- A. Direction of heat flow
- B. Direction of electric current and light emission
- C. Shape of LED
- D. Battery strength (B)

**Explanation:** The arrow in the LED symbol shows the direction of current flow and that light is emitted.

7. How is a wire represented in a circuit diagram?

- A. Curved line
- B. Zigzag line
- C. Straight line
- D. Dotted line (C)

**Explanation:** In a circuit diagram, a wire is represented by a straight line.

8. Which symbol represents a switch in the OFF position?

- A. A closed line
- B. A broken line with a gap
- C. A circle with a cross
- D. Two long lines (B)

**Explanation:** A switch in the OFF position is shown by a broken line indicating a gap in the circuit.

9. What is the main advantage of a circuit diagram over a real picture?

- A. Uses real wires
- B. Looks more colourful
- C. Easier to read and understand
- D. Does not need symbols (C)

**Explanation:** Circuit diagrams are easier to read and understand than real pictures.

10. The battery symbol in a circuit diagram represents \_\_\_\_\_.

- A. A single wire
- B. A single electric cell
- C. Two or more electric cells
- D. A switch (C)

**Explanation:** The battery symbol represents two or more electric cells connected together.