Electricity and Circuit

Practice Sheet

Estimate Time : 20 minutes **Maximum Marks : 10**

Instructions

- This test contains 6 questions.
- Q.1 to Q.3 are one-mark questions, to be answer in about one word or one sentence.
- Q.4 & Q.5 are two-mark questions, to be answer in about 50 words.
- Q.6 is three-mark question, to be answer in about 80 words.

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1. What is meant by a battery?

2. Name some devices in which we use an electric cell.

3. What is unit of resistance?

4. What is electric current and its unit?

5. (a) Why does a fused bulb not light up?

(b) What is direction of the current in the electric circuit?

6. (a) What is conductor and insulator? Explain with suitable examples.

(b) What do you understand by closed circuit and open circuit?

Practice Sheet Solutions

1. When two or more cells are joined together, it is called a battery.

2. Alarm clock, wristwatch, transistor, torch etc.

3. Resistance is measured in a unit called Ohm.

4. A flow of electrons through a conductor is called an electric current. Electric current is measured in a unit called Ampere.

5. (a) A fused bulb means a break in its filament which results in a break in the path of the current between the terminals of the electric cell. Thus, a fused bulb does not light up as no current passes through its filament.

(b) In an electric circuit, the direction of current is taken to be from the positive terminal to the negative terminal of the electric cell.

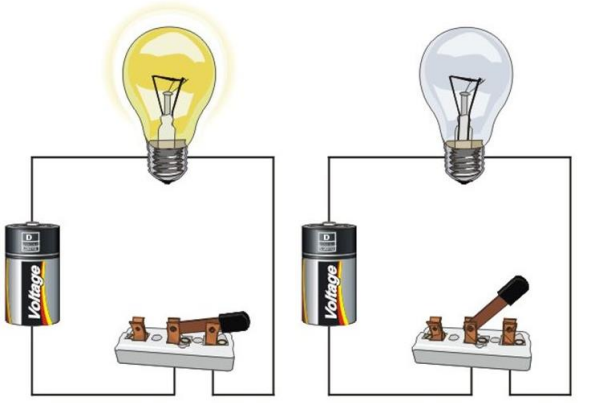
6. (a) Conductors are materials that allow charges to flow through them easily. In other words, 'materials which allow electric current to pass through them are conductors of electricity'. Metals such as copper and silver are good conductors of electricity.

Insulators are materials that do not allow charges to flow through them easily. In other words, 'materials which do not allow electric current to pass through them are insulators of electricity'.

Rubber, plastic and air are insulators.

(b) Open and closed circuits

To keep charges moving, the circuit cannot have any breaks. A complete, unbroken circuit is called a closed circuit. If the circuit has any breaks or openings, it is called an open circuit. Electric current cannot flow in an open circuit.



(a) Closed circuit (b) Open circuit

Open and closed circuits