

CBSE Class–VI Subject Science
NCERT Solutions
(CHAPTER-12)
ELECTRICITY AND CIRCUITS

Question 1. Fill in the blanks:

- (i) A device that is used to break an electric circuit is called -----.
- (ii) An electric cell has ----- terminals.

Answer: (i) A device that is used to break an electric circuit is called **switch**.
(ii) An electric cell has **two** terminals.

Question 2. Mark 'True' or 'False' for following statements:

- (a) Electric current can flow through metals.
- (b) Instead of metal wires, a jute string can be used to make a circuit.
- (c) Electric current can pass through a sheet of thermocol.

Answer: (a) Electric current can flow through metal. **True**
(b) Instead of metal wires, a jute string can be used to make a circuit. **False**
(c) Electric current can pass through a sheet of Thermocole. **False**

Question 3. Explain why the bulb would not glow in the arrangement show in Fig.

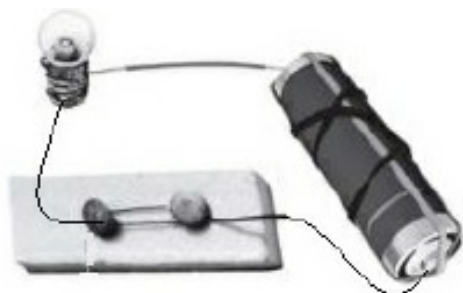


Answer: Bulb will not glow in the arrangement because the holder of the tester used in the connection is made of plastic which is an insulator. Thus, current will not flow in the circuit.

Question 4. Complete the drawing shown in Fig, to indicate where the free ends of the two wires should be joined to make the bulb glow.



Answer:



Question 5. What is the purpose of using an electric switch? Name some electrical gadgets that have switches built into them.

Answer: Switch is a simple device that is used to either break the electric circuit or to complete it.

Electric gadgets that have switches built into them are microwaves, freezers, rice cooker, automatic electric iron, toasters etc.

Question 6. Would the bulb glow after completing the circuit shown in Fig in the Q.4 if instead of safety pin we use an eraser?

Answer: No, because eraser is an insulator.

Question 7. Would the bulb glow in the circuit shown in Fig.?



Answer: No, the bulb will not glow because the wires from both terminals of the battery are connected to the one terminal of the bulb. In order to make the bulb glow, wires should be connected to the both terminals of the bulb.

Question 8. Using the “conduction tester” on an object it was found that the bulb begins to glow. Is that objected a conductor or an insulator? Explain.

Answer: That object is conductor because electricity can pass thorough only a conductor and not through an insulator. Unless the object is conductor, the bulb could not glow.

Question 9. Why should an electrician use rubber gloves while repairing an electric switch at your home?

Answer: The rubber gloves are insulators. This saves the electrician form getting an electric shock. That is why an electrician uses rubber gloves, while repairing an electric switch.

Question 10. The handles of the tools like screwdrivers and pliers used by electrician for repair work usually have plastic or rubber covers on them. Can you explain why?

Answer: Plastic and rubber, both is bad conductor of electricity. Hence they protect against electric shock.