

Class- 6

Subject- Science

Chapter- 12

Electricity and Circuits

Exercise Questions

1. Fill in the blanks :

Solution:

(a) switch.

(b) two.

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

Solution:

(a) True

(b) False

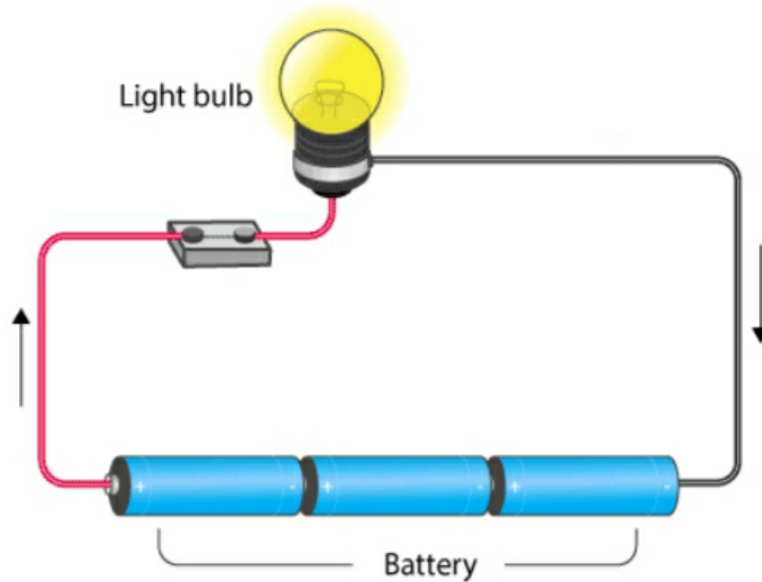
(c) False

3. Explain why the bulb would not glow in the arrangement shown in Fig. 12.13.

Ans: Bulb would not glow in the arrangement because circuit is not complete due to presence of insulator in the center.

4. Complete the drawing shown in Fig 12.14 to indicate where the free ends of the two wires should be joined to make the bulb glow.

Solution:



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

Ans: Purpose of electric switch is to complete or break the circuit. Electrical gadgets that have switches built into them are Fan, refrigerator, television, microwave oven, electric cookers.

6. Would the bulb glow after completing the circuit shown in Fig. 12.14 if instead of safety pin we use an eraser?

Ans: No, the bulb will not glow as eraser is an insulator.

7. Would the bulb glow in the circuit shown in Fig. 12.15?

Ans: No, the bulb will not glow.

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

Ans: The object is a conductor because the bulb glows only when the conductor is used but not when the insulator is used.



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

Ans: An electrician uses rubber gloves while repairing an electric switch at your home because rubber gloves are insulators. This protects him from avoiding electric shocks.

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

Ans: Tools like screwdrivers and pliers used by electricians for repair work because plastic is an insulator and plastic handles protect the electrician from electric shocks.

Additional Questions:-

Q.1 What is an electric cell?

Ans: Electric cell is a source of energy, it produces a small amount of electricity from chemicals stored inside it.

Q.2 What is meant by battery?

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

Q.3 Name some devices in which we use an electrical cell.

Ans: We use electric cell in an alarm clock, wrist watch, camera, torch, etc.

Q.4 What is electric circuit?

Ans: Path from one terminal of the electric cell to the other terminal cell electric cell through wires passing to and from the electric bulb is called electric circuit.

Q.5 What is the direction of current in the electric circuit?

Ans: In an electric circuit, the direction of current is taken to be from positive terminal to the

negative terminal of the electric cell.

Q.6 What is a filament?

Ans: A filament is a thin wire fixed in the middle of a bulb connected to the two supporting wires.

Q.7 What is a conductor? Give examples.

Ans: A conductor is a material that allows an electric current to pass through it. For example, copper, silver, aluminium, zinc, iron, etc.

Q.8 What is an insulator? Give examples.

Ans: Insulator is the material that does not allow an electric current to pass through it. For example, plastic, wood, paper, rubber, glass, air, etc.

