

Long Answer Questions

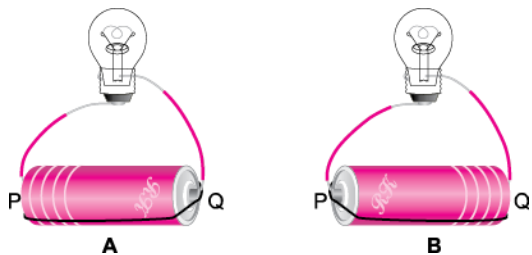
Q.1. Boojho has a cell and a single piece of connecting wire. Without cutting the wire in two, will he be able to make the bulb glow? Explain with the help of a circuit diagram.

[NCERT Exemplar]

Ans. Yes, using the arrangement given below he can succeed in getting the bulb glow.



Q.2. Figures A and B, show a bulb connected to a cell in two different ways.



What will be the direction of the current through the bulb in both the cases. (Q to P or P to Q)

Ans. In Fig. (A) Q to P and in Fig. (B) P to Q.

Q.3. A torch is not functioning, though contact points in the torch are in working condition. What can be the possible reasons for this? Mention any three.

[NCERT Exemplar]

Ans. The possible reasons could be

- i. the bulb may be fused.
- ii. the cells may have been used up.
- iii. the cells are not placed in the correct order.
- iv. the switch is faulty. (*Any three*)

Q.4. Distinguish between the following.

(i) Insulator and Conductor

Ans.

S. No.	Insulator	Conductor
1	Materials which do not allow electric current to pass through them. For example, plastic, rubber, etc.	Materials which allow electric current to pass through them. For example, glass, air, etc.

(ii) Open circuit and Closed circuit

Ans

S. No.	Open circuit	Closed circuit
1	Circuit having a gap in its path.	Circuit which forms a complete path.
2	The bulb does not light up in this circuit.	The bulb lights up in this circuit.

(iii) Open switch and Closed switch

Ans.

S. No.	Open switch	Closed switch
1	When the switch breaks the circuit, it is called open switch.	When the switch completes the circuit, it is called closed switch.
2	Current does not flow in an open switch.	Current flows in a closed switch.