

D. Very Short Answer Questions.

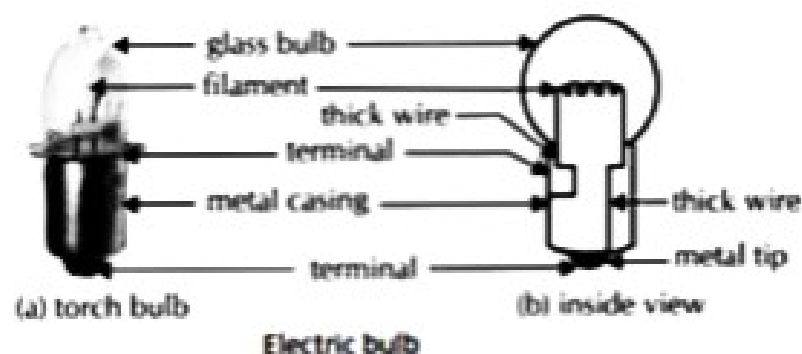
1. The path along which an electric current can flow is called an electric circuit.
2. An electric cell has two terminals.
3. The electric current flows from the positive terminal to the negative terminal of the cell.
4. Tungsten is used to make filament of the bulb.
5. The electrical cells are the source of electricity in an electric torch.
6. Copper is a good conductor of electricity.
7. The device used for completing and breaking the circuit is an electric switch.

E. Short Answer Questions.

1. The circuit in which the path from one terminal of cell to another terminal of cell is incomplete and electric current does not flow through the circuit is called incomplete or open circuit.
2. The materials that do not allow electric current to pass through them are called insulators. Rubber, plastic, wood and glass are examples of insulators.
3. (a) When the switch is in the 'on' position, the circuit is complete/closed and the electrical appliance will work.
(b) When the switch is in the 'off' position, the circuit is incomplete/open and there is a break in the circuit. So, the electrical appliance will not work.
4. Electricians wear rubber gloves because rubber is a good insulator and it protects them from electric shocks.
5. When an electric current is passed through the filament of a bulb, it glows.
6. The materials that allow electric current to pass through them are called conductors of electricity.

F. Long Answer Questions.

1.



An electric bulb has an outer case made of glass that is fixed on a metallic base. A bulb consists of a tiny thin wire called a filament. The filament is

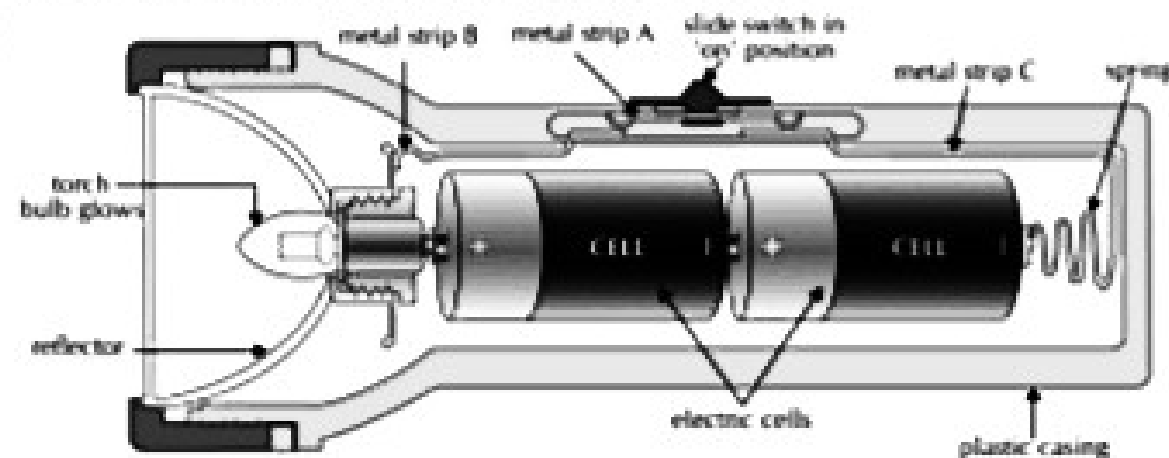
made up of tungsten and is fixed to two thick wires that provide support to it. One of these thick wires is connected to the metal case at the base of the bulb. The other thick wire is connected to the metal tip at the centre of the base. The metal tip at the centre of the base and the metal casing at its lower end acts as terminals of the bulb. These two terminals of bulb are fixed in such a way that they do not touch each other.

2. The materials that allow electric current to pass through them are called conductors of electricity. All the metals are good conductors of electricity. Among non-metals, only graphite is a good conductor of electricity.

The materials which do not allow electric current to pass through them are called insulators. Insulators are usually the non-conductors of electricity. Rubber is an insulator.

3. (a) In the torch, two or three cells are placed in series (it means the positive end of one cell touches the negative end of other cell). These cells are the source of electric current.

(b)



Inside view of an electric torch.