

CLASS NOTES

Class: VII

Topic: Exercise

Subject: Science

Chapter 14 : Electric Current and its Effects

Instructions: Write this exercise in your Science copy.

Ans 1. Draw and write Table 14.1 Symbols for some electric circuit components from pg. no. 161(NCERT VII Sc. Book).

Ans 2. Draw fig 14.9 from pg. no. 163.

Ans 3.

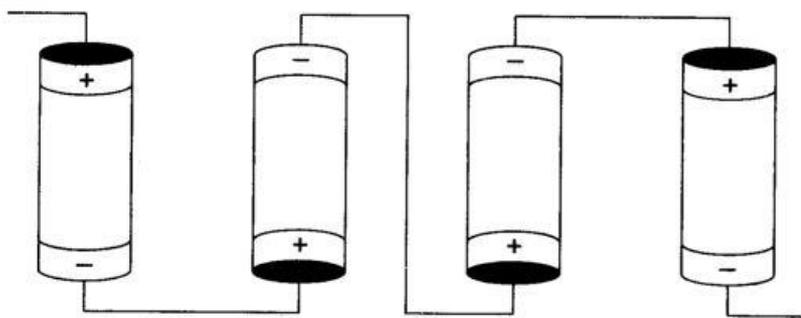


Fig. 14.12

Ans 4. The problem in this circuit is the improper connection of two cells. In the circuit positive terminal of one cell should be connected with negative terminal of other to make the bulb glow

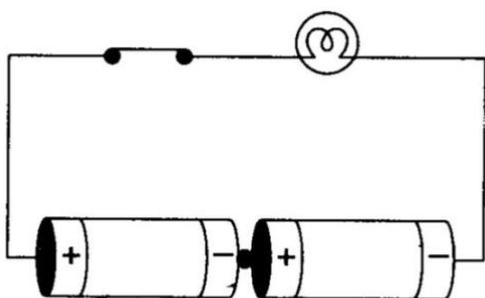


Fig. 14.14

Ans 5. Electric current has the following effect :

- (i) Heating effect of electric current.
- (ii) Magnetic effect of electric current.

Ans 6. When current is passed through the wire, it deflects the compass near it from its north-south position like a magnet. This is called magnetic effect of the current. As we know that needle of the compass is made up of a thin magnet. When this needle comes in contact with another magnet then the like poles of the magnet repel each other and opposite poles attract each other. So the deflection is seen in the needle. In this case the wire behaves like a magnet and causes deflection in needle of the compass.

Ans 7. No, because there is no source of electric current in this circuit, i.e., there is no battery.

Ans 8. Fill in the blanks:

- (a) Longer line in the symbol for a cell represents its **positive** terminal
- (b) The combination of two or more cells is called a **battery**.
- (c) When current is switched 'on' in a room heater, it **becomes red hot and emits heat**.
- (d) The safety device based on the heating effect of electric current is called a **fuse**.

Ans 9. Mark 'T' if the statement is true and 'F' if it is a false :

- (a) To make a battery of two cells, the negative terminal of one cell is connected to the negative terminal of the other cell. - **False**
- (b) When the electric current through the fuse exceeds a certain limit, the fuse wire melts and breaks. - **True**
- (c) An electromagnet does not attract a piece of iron. - **False**
- (d) An electric bell has an electromagnet. - **True**

Ans 10. No, the plastic bags do not get attracted by the magnet, so they cannot be separated by an electromagnet. Plastic bags are non-magnetic materials, only magnetic materials like iron can be attracted by the magnet.

Ans 11. No, we would not agree to allow to replace the fuse by a wire. Wires in the fuses are of specific (very low) melting points. So we should always use ISI marked fuses in our houses to prevent short circuits.

Fuse wires are mainly made up of Tin, Zinc or Lead.

Ans 12. If Zubeda will check following settings then the bulb will certainly glow.

- It is important to put the cells in right series. The positive terminal of the first cell should be connected with negative terminal of the second cell.
- The switch should be closed properly.
- Bulb should not be fused.

Ans 13. (a) No bulb will not glow.

(b) When the switch is moved to the 'ON' position bulbs A, B and C will glow simultaneously.