ELECTRIC CURRENT AND ITS EFFECTS

Q1. Fill in the blanks:

1. A combination of two or more cells is called a ________________.
2. When an electric current flows through a conductor, ________________ is produced.
3. ________________ is a safety device which prevents fires and damage to electrical appliances.
4. Instead of electric bulbs, it is advisable to use ________________ and ________________ , in order to reduce wastage.
5. The working of an electric bulb, electric iron and the fuse is based in the ________________ effect of current.
6. A current carrying coil wrapped around a piece of iron is called an ________________.
7. ________________ and ________________ are devices which have electromagnets in them.
8. ________________ performed experiments to prove the magnetic effect of current.

Q2. Choose the correct option:

1. Electric bulb converts electrical energy into:
   a) Sound energy   b) magnetic energy   c) light energy   d) chemical energy

2. If a circuit is open:
a) The bulb glows  b) the bulb does not glow  c) the bulb flickers  d) none of these

3. In an electric bell, which of these get attracted to the electromagnet?
   a) The hammer  b) the soft iron strip  c) the screw  d) none of these

4. Which of the following appliances is based on the magnetic effect of current;
   a) Electric kettle  b) electric bell  c) electric iron  d) electric oven

Q3. Draw the symbols of the following:
   a) A cell  d) a battery
   b) Switch in ON position  e) switch in OFF position
   c) A bulb  f) connecting wires

Q4. Draw a diagram to show:
   a) Open circuit
   b) Closed circuit

Q5. Describe an experiment to show how you can make an electromagnet.

Q6. When the current is switched on through a wire, a compass needle kept near it gets deflected from its north-south position. Explain.

Q7. Draw an electric bell. On which principle does it work? Name two other devices which work on the same principle.

Q8. Anu and her friends visited their neighbourhood and encouraged them to use CFL instead of bulbs. What values do they want to be inculcated?

Q9. Rohan made four electromagnets A, B, C, and D with 20, 40, 60 and 80 turns. He connected them one by one to a battery of two cells and brought them near a box of all pins. Which electromagnet will attract the maximum pins and why?

Q10. What happens during a short circuit? Explain how it can be prevented.