

**CLASS VII**

**G.Science**

**S.A. II**

**Assignment No. 13**

**ELECTRIC CURRENT AND ITS EFFECTS**

Q1.Fill in the blanks :

1. A combination of two or more cells is called a \_\_\_\_\_ .
2. The working of a an electric bulb, electric iron and the fuse is based on the \_\_\_\_\_ effect of current.
3. The filament of an electric bulb is made of \_\_\_\_\_ and has \_\_\_\_\_ (high/low) melting point.
4. Instead of electric bulbs, it is advisable to use \_\_\_\_\_ and \_\_\_\_\_ , in order to reduce wastage.
5. \_\_\_\_\_ is a safety device which prevents fires and damage to electrical Appliances.
6. A current carrying coil wrapped around a piece of iron is called an \_\_\_\_\_.
7. \_\_\_\_\_ performed experiments to prove the magnetic effect of current.
8. \_\_\_\_\_ and \_\_\_\_\_ are devices which have electromagnets in them.

Q2. Draw the symbols for the following:

a) A cell

d) Switch in ON position

b) A battery

e) Switch in OFF position

c) A bulb

f) Connecting wires

Q3. Draw a circuit diagram to show how you will connect a battery of three cells to an electric bulb through a switch.

Q4. Choose the correct option:

a) If a circuit is open:

i) the bulb glows   ii) the bulb does not glow   iii) the bulb flickers   iv) none of these

b) Electric bulb converts electrical energy into:

i) sound energy   ii) magnetic energy   iii) light energy   iv) chemical energy

c) Which of the following appliances is based on the magnetic effect of current:

i) electric kettle   ii) electric bell   iii) electric iron   iv) electric oven

d) In an electric bell, which of these gets attracted to the electromagnet?

i) the hammer   ii) the soft iron strip   iii) the screw   iv) none of these

Q5. What happens during a short circuit? Explain how it can be prevented.

Q6. Anu and her friends visited their neighbourhood and encouraged them to use CFL instead of bulbs. What values do they want to be inculcated?

Q7. Describe an experiment to show:

a) The effect of current on a compass needle.

b) How you can make an electromagnet.

Q8. List any four uses of electromagnets.

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. Describe the construction and working of an electric bell.