# Worksheet-1 Magnetic effects of current class 10

## One marks questions

1. How can you show that the magnetic field produced by a given electric current in the wire decreases as the distance from the wire increases?

2. What is the advantage of the third wire of earth connection in domestic appliances?

3. How is the strength of the magnetic field at a point near a wire related to the strength of the electric current flowing in the wire?

4. On what effect of an electric current does an electromagnet work?

## Two marks questions

5. With the help of a neat-diagram, describe how you can generate induced current in a circuit.

6. Explain terms: (a) overloading and (b) short-circuiting

7. List in tabular form two major differences between electric motor and electric generator.

8. Explain the function of earth wire. Why is it necessary to earth metallic appliances?

9. All household appliances are connected in parallel. List two advantages of this type of arrangement.

## Three marks questions

10. Explain briefly two different ways to induce current in a coil. State the rule which determines direction of induced current.

11. (a) A stationary charge is placed in a magnetic field. Will it experience force? Give reason and justify your answer.

(b) On what factors does the direction of force experienced by a conductor when placed in a magnetic field depends?

(c) Under what conditions is the force experienced by a current carrying conductor placed in a uniform magnetic field is maximum.

12. List four important features of domestic electric circuit. Draw a diagram of common domestic circuit showing live, neutral and earth wires.