Worksheet: Magnetic Effects of Electric Current

- 1. What is the role of the split ring in an electric motor?
- 2. State two properties of magnetic lines of force?
- 3. Write two ways to induce current in a coil?
- **4.** When is the force experienced by a current-carrying conductor placed in magnetic field largest?
- 5. List two methods of producing magnetic fields.
- 6. Why does a compass needle deflect when brought near a bar magnet?
- 7. What is meant by magnetic field?
- 8. Fuse acts like a watchman in an electric circuit. Justify this statement.
- **9.** Mention and explain the function of an earth wire. Why it is necessary to earth metallic appliances?
- 10. What is electric fuse? Where is it connected in a circuit?
- 11. Why is the earth pin thicker and longer than the live and the neutral pins?
- **12.** Name and state rule used to determine the direction of magnetic field produced around a straight conductor carrying current?
- **13.** What precaution should be taken to avoid the overloading of the domestic electric circuit?
- **14.** Electric appliances like electric -press, toaster, fans etc are connected to electric mains through three-pin plug. Why?
- 15. Why do not two magnetic field lines intersect each other?
- **16.** Write the frequency of alternating current (AC) in India. How many times per second it changes its direction?
- **17.** Mention the frequency of D.C that is given by a cell.
- **18.** State the factors on which strength of magnetic field at a point due to a current carrying conductor depends?
- 19. In Faradays experiment if instead of moving the magnet towards the coil we move the coil towards the magnet. Will there be any induced current? Justify your answer. Compare the two cases.
- **20.** What is the function of an earth wire? Why is it necessary to earth metallic casing of electric appliances?