

Ch-12 Magnetic Effects of Electric Current

1. The MCB of a Rupa's room is tripped and keeps on tripping again and again. If it is a domestic circuit, what could be the reason of this phenomenon?
2. State any three appliances that function on Fleming's left hand rule.
3. What is the need to convert Dynamo into alternating current?
4. Find the applications of solenoid.
5. Difference between short circuiting and overloading.
6. Show an activity to demonstrate the direction of the magnetic field generated around a current carrying conductor.
7. What is a fuse? What material is used for make fuse wire?
8. State the properties of magnetic lines of force.
9. Name two safety measures commonly used in electric circuits and appliances.
10. What is the direction of magnetic field in bar magnet?
11. Name the type of current –
 - a. used in household supply, and
 - b. given in cell.
12. Name the physical quantities of electromagnetic induction.
13. Give one application of electromagnetic induction.
14. Name any two appliances which are based on the application of heating effect of electric current.
15. What constitutes the field of a magnet?
16. A compass needle is placed near a current carrying wire. State your observation for the following cases, and give reason for the same in each case.
 - a. Magnitude of electric current in the wire is increased, and
 - b. The compass needle is displaced away from the wire.
17. Why should a fuse with defined rating for an electric circuit not be replaced by one with a larger rating?
18. What is meant by the term frequency of an alternating current? What is the value in India? Why is an alternating current considered to be advantageous over direct current for long range transmission of electric energy?
19. What is an electromagnet? Draw a circuit diagram to show how a soft iron piece can be transformed into electromagnet.
20. With the help of neat diagram describe how you can generate induced current in the circuit.
21. Answer the following –
 - a. Mention effect of electric current on which the working of an electrical fuse is based.
 - b. Draw a schematic labeled diagram of a domestic circuit which has a provision of a main base, meter, one light bulb and a socket.
 - c. Explain the term overloading of an electric circuit.
22. Answer the following –
 - a. Describe an activity to demonstrate the pattern of magnetic field lines around a straight conductor carrying current.
 - b. State the rule to find the direction of magnetic field associated with a current carrying conductor?

23. What does an electric current-carrying wire behave like?
24. How to define field lines?
25. What do you understand by electromagnet?
26. Draw the magnetic field lines due to current through a circular loop.
27. State the properties of magnetic field lines?
28. State the similarity between solenoid and bar magnet. Also, differentiate between solenoid and coil?
29. Explain Fleming's left hand rule.
30. There are some differences between electric motor and generator. State them.
31. Give any two features of magnetic field due to current carrying solenoid coil.
32. Describe an activity to show that a magnetic field is produced by an electric current flowing through a circular coil of wire.