



Magnetism Theory Test

1. Why soft iron is used to make solenoid?
2. Write down the factors affecting the movement of a circuit in a magnetic field.
3. What are the factors affecting magnetic lines of a straight current carrying conductor and also state the law to find direction of the magnetic field.
4. Two causes of overloading
5. Draw a solenoid. Which type of magnetic field is present inside solenoid? Draw the magnetic field of solenoid.
6. Two differences between AC and DC
7. Properties of magnetic field lines of a bar magnet. Two differences between solenoid and bar magnet
8. State Flemming's left hand rule.
9. If a magnetic field is normal to a current carrying conductor, how will you find the direction of the force acting on the conductor?
10. What is the difference between a heating wire and a fuse wire?
11. A bird is sitting on 11000V wire is not hurt while a person touching 220V wire dies. Why?
12. What is a short circuit? How does a fuse help in case of a short circuit?
13. What is the role of fuse? Why is it connected in series? Why should a fuse with defined rating not be replaced by one with a larger rating?
14. What are magnetic field? How is the direction of a magnetic field at a point determined?
15. You are given two fuse wires A and B with current rating 2A and 5A respectively. Which of the two wires would you select for use with a 1000 W, 220V room heater? Justify
16. An electrician assembling a household circuit uses a long thick copper wire with green insulation and a short wire made of copper tin alloy. What are the two wires called? Mention the importance of each wire in an electrical circuit. How are the two wires are connected in the circuit?

17. Assuming that there exists a magnetic field from Kashmir to Kanyakumari, answer the following questions

What will be the change observed as

- a) An electron travels to Kolkata from Mumbai?
- b) An electron falls vertically at Mumbai?
- c) An electron goes to Kanyakumari from Kashmir?
- d) A proton falls vertically at Kashmir?

18. Draw a schematic diagram showing common domestic circuit

19. State the function of an earth wire? Why is it necessary to earth metallic appliances such as an electric iron?

20. What change in the deflection of compass needle placed at a point near current carrying straight conductor shall be observed if the

- a) Current through the conductor is increased
- b) Direction of current in the conductor is reversed?
- c) Compass is moved away from the conductor?

21. A student while studying the force experienced by a current carrying conductor in a magnetic field records the following observations

- a) The force experienced by the conductor increases as the current is increased
- b) The force experienced by the conductor decreases as the strength of the magnetic field is decreased

22. What is the direction of the magnetic field outside the magnet?

23. Why two magnetic field lines never intersect each other?

24. What is indicated by crowding of magnetic field lines in a given region?

25. What is the frequency of AC in India?

26. State factors affecting solenoid

27. How can you detect that electric circuit has a magnetic effect?

28. What is the application of left hand rule?

29. Two advantages of solenoid.

30. Why do same poles repel each other?