

CBSE TEST PAPER-04

SCIENCE & TECHNOLOGY (Class-10)

Chapter 13 : Magnetic Effects of Electric Current

1. Name two safety measures commonly used in electric circuits and appliances. (1marks)
2. State advantages of the third wire of earth connection in domestic electric appliances? (1mark)
3. How can it be shown that a magnetic field exists around a wire through which a direct electric current is passing? (1 mark)
4. Where is the magnetic field due to current through a circular loop is uniform? (1 mark)
5. Why does a compass needle get deflected when brought near a bar magnet? (2 marks)
6. Why don't two magnetic lines of force intersect each other? (2 marks)
7. Explain different ways to induce current in a coil. (2 marks)
8. The essential difference between an AC generator and a DC generator is that (2 marks)
 - (i) AC generator has an electromagnet while a DC generator has permanent magnet
 - (ii) DC generator will generate a higher voltage.
 - (iii) AC generator will generate a higher voltage.
 - (iv) AC generator has slip rings while the DC generator has a commutator.
9. Write function of an earth wire? Why is it necessary to earth metallic appliances? (2 marks)
10. List the properties of magnetic lines of force. (3 marks)
11. Write precautions to be taken to avoid the overloading of domestic electric circuits? (3 marks)
12. Explain the principle, construction and working of an AC generator, showing the output. What is the function of brushes? (5 marks)