

Physics - 10th Class Physics English Medium Chapter 15 Preparation

Q1. What is the solenoid?

Ans 1: A long coil of wire consisting of many loops is called solenoid.

Q2. What is the basis of MRI technique?

Ans 1: Weak ionic current in our body that travels along the nerve can produce the magnetic effect. This forms the basis of obtaining images of different parts of body. This is done using the technique called magnetic resonance imaging.

Q3. What is the principle of walk-through metal detectors.

Ans 1: Walk through metal detectors are installed at air ports and other places for security purpose. These detectors detect metal weapons etc. Using the principle of electromagnetic induction.

Q4. What is an electromagnet?

Ans 1: The type of temporary magnet, which is created when current flows through a coil, is called electromagnet.

Q5. State Lenz's law?

Ans 1: The direction of an induced current in a circuit is always such that it opposes the cause that produces it. This is called Lenz's law.

Q6. What do magnetic field lines show?

Ans 1: Magnetic field lines help us to visualize the magnitude and direction of the magnet.

Q7. Define primary coil.

Ans 1: The coil in which change in current induces current in neighboring coil is called primary coil.

Q8. Can a transformer operate on direct current?

Ans 1: Transformer is used to increase or decrease the A.C. voltage, therefore a transformer cannot be operated on D.C. current.

Q9. What is electromagnetism? What are its uses?

Ans 1: Electromagnetism is the study of magnetic effect of current .

Use: i. Motors and electric meters are based on the effects of magnetism produced by electric current in wires.

2. Generator produce electric current due to the movement of wires near very large magnets.

Q10. Explain application of electromagnet with the help of relay?

Ans 1: Relay; A relay is an electrical switch that opens and closes under the control of electrical circuit.

FUNCTION: The relay is used to control a large current with the help of small current.
