

**VIDYA BHAVAN, BALIKA VIDYAPEETH**  
**SHAKTI UTTHAN ASHRAM, LAKHISARAI, PIN:-811311**

**SUBJECT:-** PHYSICS

**CLASS:-** XTH

**DATE:**10/01/XXI

**SUBJECT TEACHER:- MR. NEEL NIRANJAN**

**CHAPTER 2. (MAGNETISM) (BASED ON NCERT PATTERN)**

**(REVISION)**

**Question 1.** What is the role of the split ring in an electric motor ?

**Answer:** The split ring reverses the direction of current in the armature coil after every half rotation, i.e., it acts as a commutator. The reversed current reverses the direction of the forces acting on the two arms of the armature after every half rotation. This allows the armature coil to rotate continuously in the same direction.

**Question 2.** Explain different ways to induce current in a coil.

**Answer:** Different ways to induce current in a coil are :

- moving a magnet towards or away from the coil or vice-versa, and
- changing current in the neighbouring coil.

**Question 3.** State the principle of an electric generator.

**Answer:** The electric generator works on the principle that when a straight conductor is moved in a magnetic field, then current is induced in the conductor.

In an electric generator, a rectangular coil is made to rotate rapidly in the magnetic field between the poles of a horse-shoe type magnet. When the coil rotates, it cuts the magnetic field lines due to which a current is produced in the coil.

**Question 4.** Name some sources of direct current.

**Answer:** Some of the sources of direct current are dry cells, button cells, lead accumulators.

**Question 5.** Which sources produce alternating current ?

**Answer:** Alternating current is produced by AC generators of nuclear power plants, thermal power plants, hydroelectric power stations, etc.