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SUBJECT:- PHYSICS

CLASS:- XTH

REVISION:- 04/03/XXI

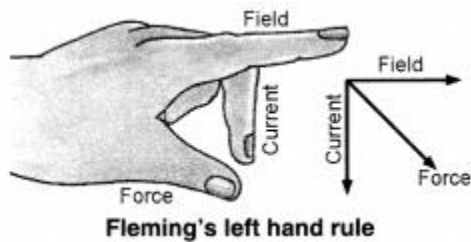
SUBJECT TEACHER:- MR. NEEL NIRANJAN

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

(REVISION)

Question 1. State Fleming's left hand rule.

Answer: Fleming's left hand rule : Stretch the first finger, the middle finger and the thumb of your left hand mutually perpendicular to each other in such a way that the first finger represents the direction of the magnetic field, the middle finger represents the direction of the current in the conductor, then the thumb will represent the direction of motion of the conductor.



Question 2. What is the principle of an electric motor ?

Answer: A motor works on the principle of magnetic effect of current. When a rectangular coil is placed in a magnetic field and current is passed through it, a force acts on the coil which rotates it continuously.

When the coil rotates, the shaft attached to it also rotates. In this way the electrical energy supplied to the motor is converted into the mechanical energy of rotation.

Question 3. 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.