CLASS X
PHYSICS
CHAPTER 10 – ELECTROMAGNETIC INDUCTION

NOTES

Electromagnetic Induction:

The relative motion between a magnet and a coil can generate electric current in the coil. This phenomenon is known as Electromagnetic Induction.

The results of Faraday's Experiment on Electromagnetic Induction:

1. Whenever there is a relative motion between a coil and a magnet an induced current flows in the coil.
2. Induced current in the coil last as long as there is change in number of magnetic lines of force linking with the coil.
3. The strength of induced emf is directly proportional to the rate of change of magnetic lines of force linked with the coil.

Fleming's right hand rule:

If the thumb, forefinger and middle finger of right hand are held mutually perpendicular to each other such that the thumb shows the direction of motion of the conductor and the forefinger shows the direction of the magnetic field, then the middle finger will show the direction of the induced current in the conductor.

Electric Generator:

It is a device to convert mechanical energy into electrical energy. It works on the principle of electromagnetic induction.

Generators are of two types:

i) AC Generator
ii) DC Generator

Fuse - It is a safety device used for protection of domestic circuits.

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