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SUBJECT:- PHYSICS

CLASS:- XTH

DATE:23/01/XXI

SUBJECT TEACHER:- MR. NEEL NIRANJAN

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

(REVISION)

Question 1 Which of the following correctly describes the magnetic field near a long straight wire ?

- (i) the field consists of straight lines perpendicular to the wire
- (ii) the field consists of straight lines parallel to the wire
- (iii) the field consists of radial lines originating from the wire
- (iv) the field consists of concentric circles centred on the wire

Answer: (iv) The field consists of concentric circles centred on the wire

Question 2. List the properties of magnetic lines of force.

Answer: Properties of magnetic lines of force :

- The magnetic field lines originate from the north pole of a magnet and end at its south pole.
- The magnetic field lines become closer to each other near the poles of a magnet but they are widely separated at other places.
- Two magnetic field lines do not intersect one another.

Question 3. Why don't two magnetic lines of force intersect each other ?

Answer: This is due to the fact that the resultant force on a north pole at any point can be only in one direction. But if the two magnetic field lines intersect one another, then the resultant force on north pole placed at the point of intersection will be along two directions, which is not possible.

Question 4. Which sources produce alternating current ?

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