

## Physics (New Book) - 9th Class Physics English Medium Chapter 8 Preparation

Q1. State right hand grip rule.

**Ans 1:** Right hand Grip rule is stated as below

"Grip the solenoid with the right hand such that fingers are curled along the direction of current in the solenoid, then the thumb points to the N-Pole of the bar end.

Q2. Which type of magnetic field is formed by a current carrying long coil.

**Ans 1:** A long coil of wire carrying a current produces a magnetic field that is similar to that of a bar magnet. The field lines are concentrated inside the coil and spread out outside, resembling the field lines of a bar magnet.

Q3. Name three uses of permanent magnets.

**Ans 1:** DC motors and generators

Moving coil loudspeaker

Refrigerator door catchers

Q4. What are magnetic domains.

**Ans 1:** Magnetic domains are microscopic regions within a ferromagnetic material where atomic magnetic moments are aligned, creating a localized magnetic field. Their alignment determines the overall magnetism of the material.

Q5. Why high field electromagnets are made by cores of soft iron.

**Ans 1:** The magnetism induced in a ferromagnetic material can be surprisingly large in the presence of a weak external field. In some cases, the induced field is a thousand times stronger than the external field. That is why high field electromagnets are made by using cores of soft iron or some other ferromagnetic material.

Q6. What is the south magnetic pole of a bar magnet.

**Ans 1:** The south magnetic pole is the end of the magnet that points towards the south.

Q7. How does the strength of a magnetic field vary near to the poles.

**Ans 1:** Magnetic field lines are stronger near the poles where the field lines are closer together.

Q8. How are magnets used in refrigerator door.

**Ans 1:** Magnetic strips are fitted to the doors of refrigerators and freezers to keep them tightly Closed

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