

# 29 Lecture - PHY101

## Important Mcqs

1. Which of the following is NOT a magnetic material?

- a) Iron
- b) Copper
- c) Nickel
- d) Cobalt

**Answer: b) Copper**

2. Which of the following is NOT a unit of magnetic field strength?

- a) Tesla
- b) Gauss
- c) Weber
- d) Ampere/meter

**Answer: c) Weber**

3. In which direction does a north magnetic pole point?

- a) North
- b) South
- c) East
- d) West

**Answer: b) South**

4. Which of the following devices is used to measure magnetic field strength?

- a) Voltmeter
- b) Ammeter
- c) Galvanometer
- d) Magnetometer

**Answer: d) Magnetometer**

5. Which of the following is a property of magnetic fields?

- a) They are always parallel to electric fields.
- b) They cannot be shielded or blocked.
- c) They can only be produced by permanent magnets.
- d) They do not interact with electric charges.

**Answer: b) They cannot be shielded or blocked.**

6. Which of the following is the formula for calculating magnetic field strength?

- a)  $B = \frac{\mu_0 I}{2r}$
- b)  $B = \frac{\mu_0 I}{4r}$
- c)  $B = \frac{\mu_0 I}{r}$
- d)  $B = \frac{\mu_0 I}{r}$

**Answer: b)  $B = \frac{\mu_0 I}{4r}$**

7. What is the direction of the magnetic field around a straight current-carrying wire?

- a) Toward the wire

- b) Away from the wire
- c) Parallel to the wire
- d) Perpendicular to the wire

**Answer: d) Perpendicular to the wire**

8. **Which of the following is a property of a solenoid?**

- a) It has a north and south pole.
- b) It produces a uniform magnetic field inside.
- c) Its magnetic field is strongest at its ends.
- d) It does not produce a magnetic field.

**Answer: b) It produces a uniform magnetic field inside.**

9. **Which of the following is the formula for calculating the magnetic force on a charged particle moving in a magnetic field?**

- a)  $F = qvB$
- b)  $F = qv/E$
- c)  $F = qE/B$
- d)  $F = qB/E$

**Answer: a)  $F = qvB$**

10. **Which of the following is NOT a type of magnetic domain?**

- a) Ferromagnetic
- b) Paramagnetic
- c) Diamagnetic
- d) Electromagnetic

**Answer: d) Electromagnetic**