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 = ?0I/2?r
   b) B = ?0I/4?r
   c) B = ?0I/?r
   d) B = ?0I/r
   Answer: b) B = ?0I/4?r

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