

High School Electromagnetism Fundamentals

Physics · Answer Key · 4 Questions

1. What generates a magnetic field around a straight wire conductor?

- A) A static electric charge
- B) An electric current passing through it**
- C) Thermal insulation
- D) Gravitational attraction

2. What is the SI unit of magnetic field strength (magnetic flux density)?

- A) Ampere
- B) Volt
- C) Tesla**
- D) Ohm

3. What is a cylindrical coil of wire that acts like a magnet when carrying an electric current called?

- A) Resistor
- B) Capacitor
- C) Solenoid**
- D) Diode

4. Which process describes generating an electromotive force (EMF) across a conductor exposed to a time-varying magnetic field?

- A) Electromagnetic induction**
- B) Electrostatic discharge
- C) Thermionic emission
- D) Photoelectric effect