

Basics of Electromagnetism

Physics · Practice Test · 8 Questions

1. What is produced around a wire when an electric current flows through it?

- A) A magnetic field
- B) A gravitational field
- C) A nuclear force
- D) A vacuum

2. How do magnetic poles interact with one another?

- A) Like poles attract, opposite poles repel
- B) Like poles repel, opposite poles attract
- C) All magnetic poles attract each other
- D) All magnetic poles repel each other

3. Which navigation tool relies on Earth's natural magnetic field to indicate direction?

- A) Barometer
- B) Thermometer
- C) Compass
- D) Altimeter

4. Which scientist discovered the principle of electromagnetic induction in 1831?

- A) Isaac Newton
- B) Michael Faraday
- C) Albert Einstein
- D) Galileo Galilei

5. Which metal core material is commonly placed inside a coil of wire to make a stronger electromagnet?

- A) Copper
- B) Iron
- C) Gold
- D) Aluminum

6. Visible light, radio waves, and X-rays are all components of what?

- A) The electromagnetic spectrum
- B) Sound wave spectrum
- C) Mechanical wave spectrum
- D) Ocean wave currents

7. What is the standard International System of Units (SI) unit for electric current?

- A) Volt
- B) Watt
- C) Ampere
- D) Joule

8. Which device uses electromagnetic induction to increase or decrease the voltage of alternating electric current?

- A) Resistor
- B) Transformer
- C) Capacitor
- D) Diode