ONTARIO PHYSICS, GRADE 12, UNIVERSITY PREPARATION (SPH4U) · UNIT C · 10 QUESTIONS

Gravitational, Electric, and Magnetic Fields — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Charging by induction involves a charged object brought near a conductor and then**

- A Heating it
- B Cutting it
- C Grounding it
- D Magnetizing it

Understand It with Pulse | Flag a mistake

2 **The magnetic field inside a long solenoid is approximately**

A Zero

B Radial

C Decreasing to zero

D Uniform

Understand It with Pulse | Flag a mistake

3 **A galvanometer can be converted to an ammeter by adding a low resistance in**

A Series

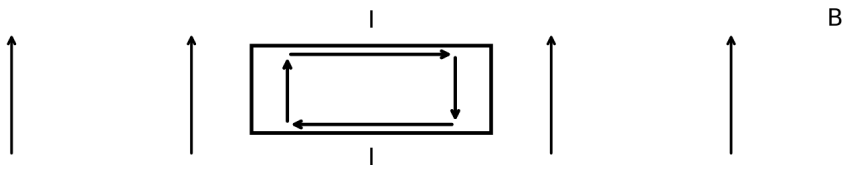
B Parallel

C Both

D Neither

Understand It with Pulse | Flag a mistake

4 **The diagram shows a current carrying loop in a magnetic field pointing up. The loop experiences a**



- **A** Torque tending to rotate it
- **B** Force only
- **C** Charge separation only
- **D** No force or torque

Understand It with Pulse | Flag a mistake

5 **A motor rotates because forces on opposite sides of its coil act in**

- **A** The same direction
- **B** Opposite directions
- **C** A circle only
- **D** No direction

Understand It with Pulse | Flag a mistake

6 **Back EMF in a motor opposes the applied voltage and increases with**

- A Speed of rotation
- B Current
- C Resistance
- D Mass

Understand It with Pulse | Flag a mistake

7 **A generator converts mechanical energy into electrical energy by rotating a coil in a**

- A Electric field
- B Magnetic field
- C Vacuum
- D Water

Understand It with Pulse | Flag a mistake

8 **Eddy currents are induced currents in bulk metal that cause energy loss as**

A Heat

B Light

C Sound

D Motion

Understand It with Pulse | Flag a mistake

9 **Laminated cores reduce eddy currents by increasing**

A Mass

B Resistance between layers

C Conductivity

D Magnetic field

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10 **The unit of magnetic field strength, the tesla, is equivalent to newtons per**

A Kilogram

B Ampere metre

C Coulomb metre per second

D Volt metre

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. C
2. D
3. B
4. A
5. B
6. A
7. B
8. A
9. B
10. B

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