1. What does Lenz's law state about the induced electromotive force (emf) in a coil?

A) It generates a current that supports the change in magnetic flux

B) It generates a current that opposes the change in magnetic flux

C) It has no effect on the magnetic flux

D) It only applies to direct current systems

2. What happens to the induced current when the magnetic flux through a coil increases?

A) The induced current creates a magnetic field supporting the increase

B) The induced current creates a magnetic field opposing the increase

C) The induced current stops flowing

D) The induced current flows in the same direction as the external field

3. How do you determine the direction of the induced current in a coil?

A) By using the left hand rule

B) By applying Lenz's Law and the right hand rule

C) By measuring the voltage across the coil

D) By observing the physical movement of the coil

4. What does a 'dot' (•) symbol represent in the context of magnetic fields?

A) Magnetic field going into the page

B) Magnetic field coming out of the page

C) Magnetic field pointing to the left

D) Magnetic field pointing to the right

5. In the example of a coil moving into a region with a magnetic field pointing out of the page, what direction does the induced current flow?

A) Counterclockwise

B) Clockwise

C) No current flows

D) Induced current flows in both directions