Automotive Technology 7th Edition
Chapter 44
Multiple Choice Quiz B

Name: _____ Date: _____

1. What is the difference between a “married” ignition coil and a “divorced” ignition coil?
A. Married coils have electrically connected primary and secondary windings, while divorced coils have separate windings.
B. Married coils are used in older vehicles, while divorced coils are used in modern vehicles.
C. Married coils have higher resistance, while divorced coils have lower resistance.
D. Married coils are used for diesel engines, while divorced coils are used for gasoline engines.

2. Magnetic field strength is primarily measured in which unit?
A. Ampere-turns
B. Flux
C. Density
D. Coil strength

3. In the context of electromagnetic devices, what does the term "permeability" refer to?
A. The ability of a material to conduct electricity.
B. The ability of a material to resist magnetic forces.
C. The ability of a material to allow magnetic force to pass through.
D. The ability of a material to store magnetic energy.

4. What is the result if a magnet cracks?
A. It loses all its magnetic properties.
B. It becomes two weaker magnets.
C. Its north and south poles reverse.
D. It generates electromagnetic interference.

5. Which of the following devices operates based on the principle of electromagnetic induction?
A. Resistor
B. Capacitor
C. Ignition coil
D. Battery

6. Which of the following is a characteristic of magnetic induction?
A. It requires an external power source.
B. It can only occur in ferromagnetic materials.
C. It involves creating a magnet using a magnetic field.
D. It is a temporary phenomenon that lasts for a short duration.

7. How do magnetic poles behave in relation to charged particles?
A. Like poles attract, and unlike poles repel.
B. Like poles repel, and unlike poles attract.
C. All poles attract each other.
D. Magnetic poles do not interact with charged particles.

8. What is the significance of the turn's ratio in an ignition coil?
A. It determines the voltage output of the coil.
B. It represents the resistance of the coil.
C. It indicates the efficiency of the coil.
D. It specifies the size of the coil.

9. How are magnetic lines of force oriented in a bar magnet?
A. They exit from the south pole and enter the north pole.
B. They are concentrated in the center of the magnet.
C. They exit from the north pole and enter the south pole.
D. They are evenly distributed throughout the magnet.

10. What happens when unlike magnetic poles are placed close together?
A. They repel each other.
B. They have no effect on each other.
C. They attract each other.
D. They neutralize each other.

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Answer Key

1. A

2. A

3. C

4. B

5. C

6. C

7. B

8. A

9. C

10. C