Automotive Technology 7th Edition
Chapter 88
Multiple Choice Quiz A

Name: _____ Date: _____

1. What is a key consideration when servicing the air-conditioning system in a hybrid or electric vehicle?
A. Ensure the high-voltage system is properly depowered before service.
B. Always use the same refrigerant oil as in traditional vehicles.
C. No special procedures are required compared to traditional vehicles.
D. Only use refrigerant recovery machines designed for traditional vehicles.

2. When placing a hybrid vehicle in maintenance mode, what is a common reason for doing so?
A. To disable the vehicle's electrical systems.
B. To bypass the idle-stop feature and keep the engine running.
C. To test the high-voltage battery.
D. To reset the vehicle's computer systems.

3. What is the purpose of the high-voltage battery cabin filter in hybrid vehicles?
A. To improve air quality inside the vehicle.
B. To filter out engine emissions.
C. To regulate the temperature of the battery.
D. To enhance the performance of the HVAC system.

4. Why is it recommended to use a premixed replacement coolant in hybrid or electric vehicle cooling systems?
A. It is more cost-effective.
B. It enhances the cooling efficiency.
C. The minerals in tap water can cause corrosion issues.
D. It is a manufacturer's marketing strategy.

5. What is a common issue with the base brakes on hybrid and electric vehicles in the “salt belt” region?
A. Increased wear and tear due to heavy use.
B. Rust and reduced pad contact due to less use and moisture retention.
C. Frequent overheating.
D. Incompatibility with regenerative braking systems.

6. What special procedure is required when repairing a puncture on a noise-reducing tire?
A. The tire cannot be repaired and must be replaced.
B. Special puncture repair kits must be used.
C. No special procedure is required.
D. The acoustical foam must be removed and reattached around the repair area.

7. What is the primary reason for the frequent stopping and starting of the engine in hybrid vehicles?
A. To reduce engine damage.
B. To improve fuel economy.
C. To test the battery's charge and discharge cycles.
D. To cool down the engine.

8. What is a key maintenance item for both hybrid and electric vehicles?
A. Regular engine oil changes.
B. Frequent battery replacements.
C. Tire rotation every 7,500 miles.
D. Regular transmission fluid changes.

9. What is the significance of the Japanese Industrial Standard (JIS) rating on a Toyota hybrid battery?
A. It indicates the battery's environmental friendliness.
B. It signifies the battery's compatibility with specific models.
C. It represents the battery's charging speed.
D. It is a measure of the battery's cold-cranking amperes.

10. What should be done when servicing an electric air-conditioning compressor in a hybrid vehicle?
A. Use a standard refrigerant recovery machine.
B. Ensure the proper refrigerant oil is used in the repair.
C. No special precautions are needed.
D. Always replace the compressor with a new one.

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Answer Key

1. A

2. B

3. C

4. C

5. B

6. D

7. B

8. C

9. D

10. B