Automotive Technology 7th Edition
Chapter 87
Multiple Choice Quiz B

Name: _____ Date: _____

1. What is the primary advantage of electric motors over internal combustion engines?
A. Higher initial torque
B. Better fuel efficiency
C. Longer lifespan
D. Easier to manufacture

2. What is a significant factor in the better handling and stability of electric vehicles?
A. Advanced suspension systems
B. The placement of the high-voltage battery
C. Lighter overall vehicle weight
D. Aerodynamic design

3. What was one of the first practical electric vehicles in the early 1900s?
A. The 1903 Baker Electric Car
B. The Detroit Electric Car
C. The Lohner-Porsche Mixte Hybrid
D. The Ford Model T Electric

4. What is the typical home electrical requirement for charging an electric vehicle overnight?
A. A 110-volt outlet
B. A 220–240-volt outlet
C. A 380–400-volt outlet
D. A 480-volt outlet

5. What should be done to increase the range of an electric vehicle?
A. Accelerate quickly
B. Drive at high speeds
C. Use the air-conditioning liberally
D. Precondition the vehicle while attached to the charging station

6. What is the purpose of the acoustical foam inside some electric vehicle tires?
A. To increase traction
B. To reduce noise
C. To improve fuel efficiency
D. To balance the tire

7. What additional cost may a hybrid vehicle owner incur compared to a conventional vehicle?
A. Higher cost of full-synthetic motor oil
B. Lower cost of brake pad replacements
C. Higher cost of windshield wiper fluid
D. Lower cost of tire replacements

8. What is the primary propulsion source in a series-parallel hybrid design?
A. The electric motor only
B. The ICE only
C. Both the electric motor and ICE
D. The transmission

9. What is the difference between a mild hybrid and a full hybrid in terms of propulsion?
A. A mild hybrid can propel the vehicle in electric mode
B. A full hybrid can propel the vehicle in electric mode
C. There are no differences between mild and full hybrids
D. None of the answers are correct

10. What distinguishes a plug-in hybrid electric vehicle (PHEV) from a hybrid electric vehicle (HEV)?
A. Both an HEV and PHEV have to be plugged in
B. Only the PHEV needs to be plugged in to achieve maximum range
C. A PHEV does not use an ICE
D. An HEV uses a high-voltage battery that has a higher capacity than a PHEV

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Answer Key

1. A

2. B

3. A

4. B

5. D

6. B

7. A

8. C

9. B

10. B