Automotive Technology 7th Edition
Chapter 91
Multiple Choice Quiz B

Name: _____ Date: _____

1. How does the regenerative braking system interact with the antilock braking system (ABS)?
A. It disables ABS.
B. It operates independently of ABS.
C. It must be designed to allow for proper use of ABS.
D. It enhances the function of ABS by increasing braking force.

2. What is the typical behavior of the brake usage curve in hybrid vehicles?
A. It shows a constant proportion of regenerative to friction braking.
B. It shows an increasing proportion of friction braking as the vehicle slows down.
C. It shows a decreasing proportion of friction braking as the vehicle slows down.
D. It shows a random proportion of regenerative to friction braking.

3. What is the stopping rate that indicates a severe stop?
A. 1 ft/sec^2
B. 4 ft/sec^2
C. 8 ft/sec^2
D. 12 ft/sec^2

4. Which vehicle can come to a complete stop in its “e-Pedal” mode without the driver needing to depress the brake pedal to hold the vehicle from moving?
A. Nissan Leaf
B. Volkswagen eGolf
C. Chevrolet Bolt EV
D. Audi

5. What is the deceleration rate at which the brake lights come on to warn the driver behind that the vehicle is braking?
A. Greater than 0.1 Gs
B. Greater than 0.2 Gs
C. Greater than 0.3 Gs
D. Greater than 0.4 Gs

6. Which vehicle has an “L” setting for its drive selector that increases the strength of regeneration but is not strong enough to permit proper one-pedal driving under many circumstances?
A. Nissan Leaf
B. Volkswagen eGolf
C. Chevrolet Bolt EV
D. Audi

7. What precaution should be taken when servicing the brakes on a Ford Escape?
A. Leave a door open.
B. Put a cover over the master cylinder.
C. Energize the brake controller.
D. Put the vehicle in “Pad Service” mode.

8. What is the effect of a fully charged high-voltage battery on the regenerative braking system?
A. It enhances the regenerative braking force.
B. It has no effect on the regenerative braking system.
C. It may reduce or temporarily suspend regenerative braking.
D. It automatically diverts energy to the vehicle's auxiliary systems.

9. What is the primary benefit of regenerative brakes?
A. They allow for higher top speeds.
B. They reduce the drawdown of the battery charge.
C. They increase the vehicle's acceleration.
D. They eliminate the need for friction brakes.

10. What occurs when the driver first releases the accelerator pedal and starts to brake on a hybrid electric vehicle equipped with regenerative braking?
A. The vehicle immediately stops.
B. The regenerative braking system is disengaged.
C. The vehicle begins to slow down using regenerative braking.
D. The friction brakes are applied at full force.

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Answer Key

1. C

2. B

3. C

4. A

5. B

6. A

7. D

8. C

9. B

10. C