

Name: _____ Date: _____

1. What is the effect of weight transfer during a brake application?
 - A. The rear suspension compresses and the front extends
 - B. The vehicle's total weight decreases
 - C. The front suspension compresses and the weight shifts forward
 - D. The weight evenly distributes across all wheels

2. Why do front-wheel-drive vehicles have a forward weight bias?
 - A. Because of the placement of the fuel tank
 - B. Due to the location of the engine and transmission
 - C. Because of the aerodynamic design
 - D. It is a result of the suspension setup

3. What is the purpose of the "Dual Dynamometer Differential Effectiveness Analysis" (D3EA) test?
 - A. To certify the environmental friendliness of brake pads
 - B. To standardize the testing of brake fluids
 - C. To evaluate the effectiveness of replacement brake pads
 - D. To measure the durability of brake rotors

4. What is the Brake Effectiveness Evaluation Procedure (BEEP)?
 - A. A test for brake pedal responsiveness
 - B. A series of tests on aftermarket brake components
 - C. A procedure for evaluating brake line pressure
 - D. A method for assessing the environmental impact of brakes

5. What is the main environmental concern with copper in brake pads?
 - A. It can cause noise pollution
 - B. It is a pollutant when it becomes airborne
 - C. It can lead to increased fuel consumption
 - D. It reduces the lifespan of brake components

6. What is the generic name for aromatic polyamide fibers used in brake linings?
 - A. Carbon
 - B. Kevlar
 - C. Aramid
 - D. Asbestos

7. What is the primary function of the brake system?
 - A. To convert kinetic energy into electrical energy
 - B. To convert the vehicle's motion into heat energy through friction
 - C. To transfer mechanical energy to the wheels
 - D. To increase the vehicle's kinetic energy

8. What happens to a vehicle's kinetic energy as its weight doubles?
- A. It remains the same
 - B. It doubles
 - C. It quadruples
 - D. It halves
9. What is the result of a lack of traction between the tires and the ground?
- A. The vehicle continues without slowing
 - B. The vehicle stops more quickly
 - C. The brakes become more effective
 - D. The vehicle's kinetic energy decreases
10. What is the range of the friction coefficient (μ) for most standard brake pads?
- A. 0.05 to 0.25
 - B. 0.25 to 0.55
 - C. 0.55 to 0.85
 - D. 0.85 to 1.05

Automotive Technology 7th Edition

Chapter 94

Multiple Choice Quiz B

Answer Key

1. C

2. B

3. C

4. B

5. B

6. C

7. B

8. B

9. A

10. A