Automotive Technology 7th Edition
Chapter 94: Braking Principles and Friction Materials
Short Answer Quiz

Name: Date:

1. How does weight transfer affect the braking force distribution between the front and rear wheels of a front-wheel-drive vehicle?

2. Define brake fade and explain the conditions under which it occurs.

3. What is the coefficient of friction, and how is it related to the braking system?

4. Describe the difference between static and kinetic friction and their relevance to braking and parking brakes.

5. Explain how kinetic energy is related to a vehicle's mass and velocity, and its significance in the context of braking.

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6. Discuss the concept of inertia as defined by Newton's first law of motion and its implications for vehicle braking.

7. What factors contribute to the forward weight bias found in most vehicles, and how does this bias impact braking?

8. Explain why the tires, rather than the brakes themselves, are ultimately responsible for stopping a vehicle.

9. Describe the differences between the static and kinetic friction coefficients and provide an example illustrating these concepts.

10. Discuss the environmental concerns associated with copper in brake friction materials and the reasons for its reduction.