

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Brake fade can occur due to _____. 1) _____
 - A) mechanical fade
 - B) gas fade
 - C) water fade
 - D) any of the above

- 2) What can the driver do to reduce the possibility of brake fade caused by heat? 2) _____
 - A) Ride the brakes to keep the shoes and pads against the drum or rotor.
 - B) Pump the brake pedal while descending a steep hill.
 - C) Select a lower transmission gear.
 - D) Shift the transmission into neutral and allow the vehicle to coast down long or steep hills.

- 3) Work is the transfer of energy from one physical system to another. 3) _____
 - A) True
 - B) False

- 4) The static friction coefficient is always higher than the kinetic friction coefficient. 4) _____
 - A) True
 - B) False

- 5) An edge code reading for coefficient of friction is EF. This means _____. 5) _____
 - A) the coefficient of friction is 0,50
 - B) the coefficient of friction is higher when the brakes are cold
 - C) the coefficient of friction is higher when the brakes are hot
 - D) a higher quality brake has a code of FF

- 6) A 3000 pound vehicle is calculated to have a kinetic energy of 90,000 ft-lb at 28 mph. If the speed of the vehicle remains the same and the weight is doubled to 6000 pounds, what will happen to the calculated kinetic energy? 6) _____
 - A) It will remain the same.
 - B) It will increase proportionally ($\times 2$), to 180,000 ft-lb.
 - C) It will increase by the square ($\times 4$), to 360,000 ft-lb.
 - D) None of these are correct.

- 7) Energy is a measure of work. 7) _____
 - A) True
 - B) False

- 8) Which Greek letter is used to represent the coefficient of friction? 8) _____
 - A) Mu (μ)
 - B) Omega (Ω)
 - C) Delta (Δ)
 - D) Pi (π)

9) If the weight of a car doubles, its kinetic energy _____.

9) _____

- A) is cut by half
- B) triples
- C) doubles
- D) is cut by one-quarter

10) Technician A says that the front brakes do most of the braking because the front brakes are larger. Technician B says that due to weight transfer, most of the braking force needs to be done by the front brakes. Which technician is correct?

10) _____

- A) Technician A only
- B) Technician B only
- C) Both technicians
- D) Neither technician

Answer Key

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1) D

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2) C

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3) A

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4) A

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5) C

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6) B

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7) B

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8) A

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9) C

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10) B

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