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   6) _____
   of the vehicle remains the same and the weight is doubled to 6000 pounds, what will happen to
   the calculated kinetic energy?
   A) It will remain the same.
   B) It will increase proportionally (× 2), to 180,000 ft-lb.
   C) It will increase by the square (× 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   10) _____
  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?
  A) Technician A only
  B) Technician B only
  C) Both technicians
  D) Neither technician

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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