

Name \_\_\_\_\_

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

- 1) What term describes the result when force is used to move an object? 1) \_\_\_\_\_  
A) Work  
B) Energy  
C) Both A and B  
D) Neither A nor B
- 2) One horsepower is the power required to move \_\_\_\_\_ pound(s) a distance of one foot in one second. 2) \_\_\_\_\_  
A) 550  
B) 33000  
C) 1  
D) none of these
- 3) If a closed container of gas is compressed the volume of the gas will \_\_\_\_\_ and the temperature will \_\_\_\_\_. 3) \_\_\_\_\_  
A) increase; increase  
B) decrease; increase  
C) remain the same; become cooler  
D) decrease; remain the same
- 4) Heat can move or travel by \_\_\_\_\_. 4) \_\_\_\_\_  
A) conduction  
B) convection  
C) radiation  
D) all of these
- 5) All of the following are correct statements about braking EXCEPT \_\_\_\_\_. 5) \_\_\_\_\_  
A) kinetic energy must be absorbed by the brake system  
B) kinetic energy of a vehicle doubles when the speed doubles  
C) the heavier the vehicle, the greater the kinetic energy when moving  
D) if the weight of the vehicle is doubled, the kinetic energy of a moving vehicle is doubled
- 6) Kinetic energy of a moving object increases at a rate that is \_\_\_\_\_. 6) \_\_\_\_\_  
A) the square of its speed  
B) equal to its speed  
C) half its speed  
D) none of these

- 7) Two technicians are discussing temperature and heat. Technician A says that temperature is the intensity of the heat source. Technician B says that heat is the amount of heat. Which technician is correct? 7) \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
- 8) Technician A says that work is being performed if a force is being applied, yet the object does not move. Technician B says that torque is a twisting force that may or may not result in motion. Which technician is correct? 8) \_\_\_\_\_
- A) Technician A only
  - B) Technician B only
  - C) Both technicians
  - D) Neither technician
- 9) Generally, materials that are good conductors of heat are also good conductors of electricity. 9) \_\_\_\_\_
- A) True
  - B) False
- 10) Technician A says that the kinetic energy of a vehicle is proportional to its weight. Technician B says that the kinetic energy of a moving vehicle is directly proportional to its speed. 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) A  
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- 2) A  
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- 3) B  
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- 4) D  
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- 5) B  
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- 6) A  
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- 7) C  
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- 8) B  
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- 9) A  
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- 10) A  
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