

# Chapter 3 Quiz

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Directions:** Write the correct letter on the blank before each question.

- \_\_\_\_\_ 1. Reactions that absorb energy are called: (75)
- A. kinetic.
  - B. exothermic.
  - C. endothermic.
  - D. passive reactions.
- \_\_\_\_\_ 2. The oldest and simplest model used to describe fire behavior is known as the: (76)
- A. fire triangle.
  - B. ignition line.
  - C. fire tetrahedron.
  - D. combustion pathway.
- \_\_\_\_\_ 3. Which of the following occurs when burning is localized on or near the fuel's surface, where it is in contact with oxygen? (76)
- A. Flaming combustion
  - B. Primary combustion
  - C. Secondary combustion
  - D. Nonflaming combustion
- \_\_\_\_\_ 4. Which of the following exists in many forms including chemical, mechanical, and electrical? (78)
- A. Heat
  - B. Energy
  - C. Compression
  - D. Temperature

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- \_\_\_\_\_ 5. Which type of ignition occurs without any external flame or spark? (79)
- A. Autoignition
  - B. Kinetic ignition
  - C. Piloted ignition
  - D. Secondary ignition
- \_\_\_\_\_ 6. The most common source of heat in combustion reactions is: (80)
- A. light energy.
  - B. chemical energy.
  - C. electrical energy.
  - D. mechanical energy.
- \_\_\_\_\_ 7. Which type of heat transfer occurs when a material is heated as a result of direct contact with a heat source? (83)
- A. Radiation
  - B. Convection
  - C. Conduction
  - D. Penetration
- \_\_\_\_\_ 8. Which process usually involves the transfer of heat through the movement of hot smoke and fire gases? (84)
- A. Radiation
  - B. Convection
  - C. Conduction
  - D. Penetration
- \_\_\_\_\_ 9. Which type of heat transfer travels through vacuums and air spaces? (87)
- A. Radiation
  - B. Convection
  - C. Conduction
  - D. Penetration
- \_\_\_\_\_ 10. Materials that absorb heat, but do not contribute fuel in the combustible reaction are known as: (87)
- A. passive agents.
  - B. inactive agents.
  - C. conductive agents.
  - D. nonreactive agents.

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- \_\_\_\_\_ 11. What physical state must fuel be in for flaming combustion to occur? (89)
- A. Gas
  - B. Solid
  - C. Liquid
  - D. Either gas or liquid
- \_\_\_\_\_ 12. What occurs as solid fuels are heated and begin to decompose and give off combustible vapors? (91)
- A. Pyrolysis
  - B. Autoignition
  - C. Vaporization
  - D. Sustained chemical reaction
- \_\_\_\_\_ 13. Which type of fire consists of ordinary combustibles such as wood, cloth, and paper? (96)
- A. Class A
  - B. Class B
  - C. Class C
  - D. Class D
- \_\_\_\_\_ 14. Which type of fire consists of flammable liquids and gases such as gasoline, oil, and methane? (96)
- A. Class A
  - B. Class B
  - C. Class C
  - D. Class D
- \_\_\_\_\_ 15. Which type of fire consists of combustible metals such as aluminum and magnesium? (98)
- A. Class B
  - B. Class C
  - C. Class D
  - D. Class K
- \_\_\_\_\_ 16. Which type of fire must have an extinguishing agent that uses saponification? (98)
- A. Class A
  - B. Class C
  - C. Class D
  - D. Class K

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- \_\_\_\_\_ 17. All other factors being equal, a fire in a large compartment will develop: (101)
- A. more slowly than one in a small compartment.
  - B. more quickly than one in a small compartment.
  - C. at the same rate as one in a small compartment.
  - D. at approximately twice the rate of one in a small compartment.
- \_\_\_\_\_ 18. Which of the following thermal properties of a compartment maintains temperature by absorbing and releasing large amounts of heat slowly? (102)
- A. Fuel load
  - B. Retention
  - C. Insulation
  - D. Heat reflectivity
- \_\_\_\_\_ 19. During what stage is the fire releasing the maximum amount of heat possible for the available fuel and oxygen? (107)
- A. Decay
  - B. Growth
  - C. Incipient
  - D. Fully developed
- \_\_\_\_\_ 20. Which stage occurs when the oxygen concentration falls to the point that flaming combustion is diminished? (108)
- A. Decay
  - B. Growth
  - C. Incipient
  - D. Fully developed