

Chapter 13 Test

Name: _____ Date: _____

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

Objective 1:

Describe the components and operation of fixed fire suppression systems.

- _____ 1. What is required for a special-agent extinguishing system to be considered successful? (564)
- A. The cost of maintenance
 - B. Ease of use by occupant/owners
 - C. It must completely extinguish the fire
 - D. It controls or contains a fire until the fire department arrives
- _____ 2. How are special-agent fire extinguishing systems classified? (565)
- A. By type of occupancy
 - B. By the type of fire they will extinguish
 - C. By the type of agent used in the system
 - D. By the amount of time it takes to expel the agent
- _____ 3. Which class of fire involves energized electrical equipment? (565)
- A. Class A
 - B. Class B
 - C. Class C
 - D. Class D
- _____ 4. When rapid fire extinguishment is required and reignition is unlikely: (565)
- A. dry powder systems are used.
 - B. clean agent systems are used.
 - C. dry-chemical systems are used.
 - D. wet-chemical systems are used.

- _____ 5. Which of the following tasks regarding dry-chemical systems is an Inspector I MOST likely to be required to perform? (566)
- A. Inspect new installations
 - B. Conduct acceptance tests
 - C. Evaluate application methods
 - D. Evaluate inspection and testing requirements
- _____ 6. Which type of dry-chemical fixed application method introduces a concentration of agent into a closed area? (566)
- A. Total flooding
 - B. Local application
 - C. Fire extinguishers
 - D. Handheld hoseline
- _____ 7. What is the biggest disadvantage to dry-chemical systems? (567)
- A. Cost
 - B. Difficult to find
 - C. Complicated to use
 - D. Require extensive cleanup
- _____ 8. Which dry-chemical agent is also known as ordinary dry chemical? (567)
- A. Sodium carbonate
 - B. Sodium bicarbonate
 - C. Potassium bicarbonate
 - D. Monoammonium phosphate
- _____ 9. Which dry-chemical system component may contain both the agent and the pressurized expellant gas? (568)
- A. Nozzles
 - B. Hydrants
 - C. Storage container
 - D. Actuating mechanism
- _____ 10. Which dry-chemical system component releases agent into the piping system? (568)
- A. Nozzles
 - B. Hydrants
 - C. Storage container
 - D. Actuating mechanism

- _____ 11. Which type of special-agent fire extinguishing system is used for combustible metal fires? (569)
- A. Foam systems
 - B. Dry powder systems
 - C. Dry-chemical systems
 - D. Carbon dioxide (CO₂) systems
- _____ 12. Which type of dry powder agent is sodium chloride (salt) based? (571)
- A. Halon
 - B. NA-X®
 - C. LITH-X®
 - D. MET-L-X®
- _____ 13. The special-agent fire extinguishing system most effective on fires in commercial cooking equipment that produces grease-laden vapors is a(an): (571)
- A. dry powder system.
 - B. clean agent system.
 - C. dry-chemical system.
 - D. wet-chemical system.
- _____ 14. Wet-chemical fire extinguishing agents are delivered to the hazard area in the form of a: (572)
- A. drip.
 - B. foam.
 - C. spray.
 - D. stream.
- _____ 15. The general category of fire extinguishing agents that effectively leaves no residue is a: (572)
- A. foam system.
 - B. clean agent system.
 - C. dry-chemical system.
 - D. carbon dioxide (CO₂) system.

- _____ 16. Which type of clean system agent is no longer produced but may still be in service? (573)
- A. Halon
 - B. NA-X®
 - C. LITH-X®
 - D. MET-L-X®
- _____ 17. The special-agent fire extinguishing system that is extremely cold and can freeze exposed skin is the: (574)
- A. dry powder system.
 - B. clean agent system.
 - C. dry-chemical system.
 - D. carbon dioxide (CO₂) system.
- _____ 18. What is critical to total flooding applications of carbon dioxide (CO₂) systems in order for them to be effective? (576)
- A. Room integrity
 - B. Predischarge alarms
 - C. Cost of maintenance
 - D. Proper training in use
- _____ 19. The system used when water alone may not be an effective fire extinguishing agent is a: (578)
- A. foam system.
 - B. dry powder system.
 - C. dry-chemical system.
 - D. carbon dioxide (CO₂) system.
- _____ 20. Which type of foam system method extinguishes a fire by intervening between the fuel and the fire? (578)
- A. Cooling
 - B. Separating
 - C. Smothering
 - D. Suppressing

- _____ 21. Which type of foam fire extinguishing system is wheel mounted and may have a water supply connection capability? (579)
- A. Fixed
 - B. Mobile
 - C. Portable
 - D. Semifixed
- _____ 22. The four elements necessary to produce high-quality fire fighting foam include foam concentrate, water, mechanical agitation, and: (580)
- A. air.
 - B. gas.
 - C. halon.
 - D. carbon dioxide (CO₂).
- _____ 23. The stage of foam formation that mixes water with foam liquid concentrate is: (580)
- A. aeration.
 - B. blending.
 - C. separating.
 - D. proportioning.
- _____ 24. What percentage of finished foam is water? (580)
- A. 1% to 5%
 - B. 45½% to 50%
 - C. 94% to 99½%
 - D. 100%
- _____ 25. Which foam expansion rate is used primarily to extinguish fires involving liquid fuels? (581)
- A. Trace
 - B. Low
 - C. Medium
 - D. High
- _____ 26. Which foam expansion rate is useful as a space-filling agent? (582)
- A. Trace
 - B. Low
 - C. Medium
 - D. High

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- _____ 27. Which foam proportioner is one of the most reliable methods of foam proportioning? (583)
- A. Around-the-pump proportioner
 - B. Balanced pressure proportioner
 - C. Pressure proportioning tank system
 - D. Coupled water motor-pump proportioner
- _____ 28. Which foam proportioner is the most common type of built-in proportioner installed in mobile fire apparatus? (583)
- A. Around-the-pump proportioner
 - B. Balanced pressure proportioner
 - C. Pressure proportioning tank system
 - D. Coupled water motor-pump proportioner
- _____ 29. Which foam proportioner allows for automatic proportioning over a wide range of flows and pressures and does not depend on an external power source? (584)
- A. Around-the-pump proportioner
 - B. Balanced pressure proportioner
 - C. Pressure proportioning tank system
 - D. Coupled water motor-pump proportioner

Objective 2:**Explain how to determine the operational readiness of portable fire extinguishers.**

- _____ 30. How are portable fire extinguishers classified? (585)
- A. Type of fire they will extinguish
 - B. Type of agent used in the system
 - C. Amount of time it takes to expel the agent
 - D. Type of occupancy in which they are located
- _____ 31. Portable fire extinguishers are rated by: (585)
- A. type of occupancy and intended use.
 - B. intended use and type of agent used.
 - C. intended use and extinguishing capability.
 - D. type of agent used and location in an occupancy.

- _____ 32. Which fire extinguisher agent is subject to freezing if not kept in a heated area or an antifreeze agent added? (586)
- A. Foam
 - B. Water
 - C. Dry chemical
 - D. Carbon dioxide (CO₂)
- _____ 33. Which fire extinguisher agent extinguishes primarily through a smothering action? (587)
- A. Foam
 - B. Water
 - C. Dry chemical
 - D. Carbon dioxide (CO₂)
- _____ 34. Which fire extinguisher agent is especially suitable for controlling fires outdoors? (589)
- A. Foam
 - B. Water
 - C. Dry chemical
 - D. Carbon dioxide (CO₂)
- _____ 35. Which type of fire extinguisher stores expellant gas and extinguishing agent in a single chamber? (590)
- A. Loaded-stream extinguisher
 - B. Pump-operated extinguisher
 - C. Stored-pressure extinguisher
 - D. Cartridge-operated extinguisher
- _____ 36. Clearance between the bottom of the extinguisher and the floor should never be less than: (593)
- A. 3 inches (76 mm).
 - B. 4 inches (100 mm).
 - C. 5 inches (127 mm).
 - D. 6 inches (152 mm).
- _____ 37. What is the greatest concern for extinguisher reliability? (593)
- A. Placement
 - B. Distribution of units
 - C. Type of agent used in units
 - D. Temperature of the environment