

Chapter 14 Test

Name: _____ Date: _____

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

Objective 1: Identify fire alarm system components.

- _____ 1. The fire alarm component that serves as the brain of an alarm system is called the: (608)
- A. initiating device.
 - B. notification appliance.
 - C. fire alarm control unit (FACU).
 - D. secondary power supply (SPS).
- _____ 2. Which component's power supply usually comes from the building's main power connection to the local utility provider? (609)
- A. Initiating device
 - B. Extra alarm functions
 - C. Primary power supply
 - D. Secondary power supply
- _____ 3. Which component can consist of batteries with chargers, engine-driven generators with a storage battery, or multiple engine-driven generators? (611)
- A. Initiating device
 - B. Notification appliance
 - C. Primary power supply
 - D. Secondary power supply
- _____ 4. Which component sends a signal to the FACU using either hard-wire systems or a signal conveyed by radio wave over a special frequency? (610)
- A. Initiating device
 - B. Notification appliance
 - C. Primary power supply
 - D. Secondary power supply

- _____ 5. The most common types of alarm-signaling systems used for signaling a fire alarm in a structure are: (610)
- A. tactile notification appliances.
 - B. visual notification appliances.
 - C. textual notification appliances.
 - D. audible notification appliances.

Objective 2:**Explain types of alarm-signaling systems.**

- _____ 6. Which type of fire detection and alarm system specialty signal indicates an off-normal condition of the complete fire protection system? (613)
- A. Alert signal
 - B. Alarm signal
 - C. Trouble signal
 - D. Supervisory signal
- _____ 7. A(An) _____ is a warning of a fire emergency or dangerous condition that demands immediate attention. (613)
- A. alert signal
 - B. alarm signal
 - C. trouble signal
 - D. supervisory signal
- _____ 8. Which type of specialty signal indicates loss of primary power or failure or removal of an initiating device? (613)
- A. Alert signal
 - B. Alarm signal
 - C. Trouble signal
 - D. Supervisory signal
- _____ 9. Which alarm system is designed to provide notification to building occupants only on the immediate premises? (614)
- A. Protected premises (local)
 - B. Supervising station alarms
 - C. Emergency communications
 - D. Public emergency alarm reporting

- _____ 10. The simplest type of protected premises alarm system is a(an): (615)
- A. addressable alarm system.
 - B. supervising station system.
 - C. conventional alarm system.
 - D. zoned conventional alarm system.
- _____ 11. Which of the following BEST describes a zoned conventional alarm system? (616)
- A. Usually activated by manual means, such as a pull station
 - B. They are only practical for small occupancies with a limited number of rooms
 - C. This system is found in occupancies that use the alarm signals for other purposes
 - D. An annunciator panel, FACU, or printout visibly indicates the location of an operating alarm-initiating device
- _____ 12. Which supervising station is recognized as the most reliable? (618)
- A. Local
 - B. Central
 - C. Remote
 - D. Proprietary
- _____ 13. Which supervising station is used to protect large commercial and industrial buildings, high-rise structures, and groups of commonly-owned facilities? (619)
- A. Local
 - B. Central
 - C. Remote
 - D. Proprietary
- _____ 14. Which supervising station does not provide inspection, testing, or maintenance services? (619)
- A. Local
 - B. Central
 - C. Remote
 - D. Proprietary

- _____ 15. Which of the following statements about public emergency alarm reporting systems is MOST accurate? (621)
- A. These systems cannot be connected via telephone lines.
 - B. Power interruption may result in the alarm only sounding locally.
 - C. They are connected directly to the fire department via the Internet.
 - D. Initiating devices cannot be activated when the power supply to the municipal system is interrupted.
- _____ 16. Which type of emergency communications system is MOST helpful to fire suppression personnel operating in a building? (622)
- A. Cellular phone systems
 - B. Mass notification systems
 - C. Voice notification systems
 - D. Two-way communication systems
- _____ 17. The type of emergency communications system used to provide emergency communication to a large number of people on a wide-scale basis is a: (622)
- A. cellular phone system.
 - B. public address system.
 - C. mass notification system.
 - D. two-way communication system.

Objective 3:

Explain types of automatic alarm-initiating devices.

- _____ 18. Automatic alarm-initiating devices are more commonly known as: (623)
- A. alarms.
 - B. initiators.
 - C. detectors.
 - D. activators.
- _____ 19. Which type of automatic initiating devices are relatively inexpensive and least prone to nuisance alarms? (624)
- A. Heat detection devices
 - B. Flame detection devices
 - C. Smoke detection devices
 - D. Combination detection devices

- _____ 20. What do heat detectors require in order to be effective? (624)
- A. Proper placement
 - B. Continuous testing
 - C. 24-hour monitoring
 - D. Professional installation
- _____ 21. Which type of fixed-temperature heat detector uses two types of metal with different heat-expansion ratios? (625)
- A. Bimetallic
 - B. Fusible link
 - C. Frangible bulb
 - D. Continuous-line
- _____ 22. The one style of heat detection device that can be used to detect conditions over a wide area is a: (626)
- A. bimetallic detector.
 - B. fusible link detector.
 - C. frangible bulb detector.
 - D. continuous-line detector.
- _____ 23. On which principle of physics does a rate-of-rise heat detector operate? (627)
- A. Heat causes melting of certain materials
 - B. Heat causes the expansion of various materials
 - C. Heated materials have thermoelectric properties
 - D. Fires rapidly increase the temperature of a given area
- _____ 24. Which type of rate-of-rise heat detector can monitor large areas of a building? (627)
- A. Rate-compensation heat detector
 - B. Electronic spot-type heat detector
 - C. Pneumatic rate-of-rise line heat detector
 - D. Pneumatic rate-of-rise spot heat detector
- _____ 25. Which rate-of-rise heat detector is designed for use in areas subject to regular, but slow, temperature changes? (628)
- A. Rate-compensation heat detector
 - B. Electronic spot-type heat detector
 - C. Pneumatic rate-of-rise line heat detector
 - D. Pneumatic rate-of-rise spot heat detector

- _____ 26. The preferred type of automatic alarm device in residences and health and institutional care facilities is a: (630)
- A. smoke detector.
 - B. rate-compensation heat detector.
 - C. pneumatic rate-of-rise line heat detector
 - D. pneumatic rate-of-rise spot heat detector
- _____ 27. Which type of smoke detector works on all types of fires and usually responds more quickly to smoldering fires than ionization smoke detection? (630)
- A. Duct smoke detectors
 - B. Video-based detectors
 - C. Photoelectric smoke detectors
 - D. Pneumatic rate-of-rise spot heat detectors
- _____ 28. Which type of smoke detector contains a sensing chamber consisting of two electrically charged plates and a radioactive source? (631)
- A. Duct smoke detectors
 - B. Ionization smoke detectors
 - C. Photoelectric smoke detectors
 - D. Pneumatic rate-of-rise spot heat detectors
- _____ 29. Which type of flame detector is effective in monitoring large areas such as aircraft hangars and computer rooms? (633)
- A. Infrared detectors
 - B. Ultraviolet detectors
 - C. Combination detectors
 - D. Photoelectric detectors

Objective 4:
Describe manual alarm-initiating devices.

- _____ 30. Which type of manual pull station may be confusing to certain occupant/operators? (636)
- A. Single-action
 - B. Double-action
 - C. Those with protective covers
 - D. Those with glass windows and mallets

- _____ 31. Multistory facilities should have at least _____ pull station(s) on each floor. (636)
- A. 1
 - B. 2
 - C. 3
 - D. 4

Objective 5:**Describe service testing and inspection methods for fire detection and alarm systems.**

- _____ 32. What is the periodic testing of fire detection and alarm signaling systems called? (637)
- A. Signal testing
 - B. A service test
 - C. Readiness testing
 - D. An acceptance test
- _____ 33. What should an inspector do when conditions that may trigger an unwanted alarm or environmental conditions that may negatively affect a system are recognized? (637)
- A. Collect fines
 - B. Issue citations
 - C. Contact law enforcement
 - D. Recommend corrective action
- _____ 34. What should an inspector look for when inspecting manual pull stations and audible or visual warning devices? (637)
- A. Component age
 - B. Changes in occupancy
 - C. Devices are free of dust, dirt, and paint
 - D. Components are not blocked or obstructed in any way
- _____ 35. Inspectors should check the FACU to verify: (638)
- A. component age.
 - B. changes in occupancy.
 - C. all parts are operating properly.
 - D. components are not blocked or obstructed in any way.

- _____ 36. What can be used to test restorable heat detectors during a test? (639)
- A. Matches
 - B. Setting a test fire
 - C. Hair dryers and electric heat guns
 - D. Restorable heat detectors cannot be tested
- _____ 37. A permanent record of all detector tests must be maintained for at least: (640)
- A. 3 years
 - B. 5 years
 - C. 10 years
 - D. 25 years
- _____ 38. During a monthly test for alarm signaling systems using backup electrical generators, how long should a generator run under load? (641)
- A. 15 minutes
 - B. 20 minutes
 - C. 30 minutes
 - D. 60 minutes
- _____ 39. Remote station and proprietary systems should be tested according to requirements established by: (641)
- A. fire codes.
 - B. industry standards.
 - C. manufacturer instructions.
 - D. agency having jurisdiction (AHJ).
- _____ 40. All components of emergency voice/alarm systems should be tested at least: (642)
- A. weekly.
 - B. monthly.
 - C. semiannually.
 - D. annually.