Pretest Module 30 Unit 1 Task 3

1. What is the primary purpose of a fire alarm system? Protect life

2. What are the three most common methods of initiating an alarm in a fire alarm system? Manually with pull stations, Automatically by smoke or heat detectors, and by a control in a sprinkler system

3. What is an ancillary device? Device that is operated by the fire alarm panel but is not a part of the alarm circuitry (fans, valves, door releases, etc.)

4. What is another name for initiating devices? Inputs

5. What are some signaling devices and where are they used? Bells and speakers, flashing lights (areas of high noise or where hearing-impaired people may be), chimes (hospitals or seniors homes)

6. How does an alarm typically sound in a two-stage system? Single bell strokes possibly followed by a vibrating alarm bell

7. What is another name for the signaling devices in a fire alarm system? Outputs

8. What is the advantage of a two-stage fire alarm system? Allows trained staff to investigate and sound a more serious alarm if necessary

9. What is a type 1 fire alarm system according to the NBC? One where any initiating device will sound all alarms in the system

10. What is a type 5 fire alarm system according to the NBC? Operation of the initiating device will causes a coded signal to sound the alarm alert indicating the zone where the alarm was initiated

11. What two criteria must be met for a building to have a single zone fire alarm? 2000 m² or less and 3 floors or less

12. What places in a building require a separate zone? Stairwells, elevator shafts, and ducts with detectors

13. Are manual pull stations for fire alarms momentary contact? No

14. How is the second alarm typically initiated in a two-stage fire alarm system? Key switch

15. What two factors and monitored by thermal detectors? Temperature rise and rate-of-rise
16. What are the two types of fixed-temperature heat detectors? Restorable and non-
restorable

17. How can you tell if a heat detector has activated? (Other than checking with a
meter) Center drops down

18. What is the main advantage of the rate-compensation heat detector over the rate-
of-rise detector? Faster response time

19. What are the two most common types of smoke detectors? Ionization and
photoelectric

entering the chamber interrupts the small current flow

21. What are the advantages and disadvantages of the ionization smoke detector?
More sensitive than photoelectric but can’t be used in high humidity, dust, vapor,
or steam

22. How does smoke affect the light beam in a photoelectric detector? Blocks or
scatters it

23. What determines the signaling device type? Occupancy type

24. How is the bell stroke controlled in the control unit? Relays

25. What type of signaling device is typically used in outdoor storage yards? Sirens or
horns

26. What type of light is typically used for a visual fire alarm signaling device?
Rotating or flashing strobe

27. What precaution must be taken when loudspeakers are used as signaling devices
for a fire alarm as well as other purposes? Fire alarm signals must take priority
over all others

28. What are the two main rules for powering a fire alarm control panel? Separate
breaker and back-up power supply

29. Where is the charging circuit for the backup battery typically housed? Control
panel

30. What is an addressable fire alarm system? Each initiating device has an address
and can be identified at the control panel
31. What is Class A wiring for a fire alarm system? Each device supplied from two directions

32. What is the advantage of Class A wiring for fire alarms? A break in a wire will not cause the device to be ineffective

33. How many terminals are on initiating and signaling devices in a Class B wiring fire alarm system? 4

34. Why is pigtailing and tapoffs not allowed in fire alarm systems? Won’t work for electrical supervision

35. Where is the annunciator panel for a fire alarm system to be located? Main entrance

36. What type of signal is required at an annunciator panel? Audible and visual

37. What is a transponder? Device that permits a combination of different signals to be transmitted over a single line (Multiplexer)

38. What type of signal is sent to the control panel from the transponder? Analog

39. What is done with the information sent to the control panel from the transponder? Used to make sensitivity adjustments in smoke detectors, etc.

40. What is the simplest and easiest way to determine if a trouble fault is in the external circuit wiring or the panel? Disconnect field wiring and install an end of line resistor to the terminals. If the problem remains, it is the panel

41. What is the result of grounding a wire in the field of a fire alarm system? Audible and visible trouble signal

42. Who is responsible for standards for the verification of a fire alarm system? ULC

43. In your own words, what is involved in testing a fire alarm system? Test all devices for operation. (percentage of non-restorable heat sensors) Do not use open flame.

44. What is the description of an electrician’s responsibility in a fire alarm system? Install system, correctly connect the components, ensure everything is free of faults and help with testing

45. What things must be documented in a fire alarm system? Checks, inspections, testing, and repairs
46. Who requires the testing, checking, and inspection of fire alarm systems?  
   National Fire Code