



## U.S. Fire Administration / National Fire Academy

# Coffee Break's Over!

## Self-Evaluation

(Answers are on last page. Reference numbers in parentheses pertain to the Coffee Break Training bulletin of the same number.)

Student Name \_\_\_\_\_

Student ID # \_\_\_\_\_

Date \_\_\_\_\_

1. An automatic sprinkler having a RTI of 80 (ms)<sup>0.5</sup> is categorized as a \_\_\_\_\_ sprinkler. (Reference 2007-1)
  - a. quick response
  - b. fast response
  - c. standard response
  - d. unacceptable response
  
2. During freezing conditions, dry pipe sprinkler system low point drains should be drained, and priming water checked for excess accumulation. (Reference 2007-8)
 

**T or F**
  
3. A power-limited fire alarm circuit is equipped with a power-limiting source (transformer or battery) and a \_\_\_\_\_. (Reference 2007-12)
  - a. dielectric transducer
  - b. dielectric transformer
  - c. circuit breaker
  - d. resistance amplifier
  
4. Fire inspectors who discovered alterations to a building's structural integrity should not report it because structural protection is solely the building inspector's responsibility. (Reference 2007-6)
 

**T or F**
  
5. When temporary construction standpipes are installed, their height must be extended vertically as the building rises. The highest hose outlets must be \_\_\_\_\_ of the highest point construction. (Reference 2007-5)
  - a. installed on the same floor
  - b. within one floor level
  - c. in the stairway that extends to within 10 feet
  - d. in the elevator shaft that extends to within 10 feet
  
6. In assembly occupancies, egress illumination can be reduced to \_\_\_\_\_ foot-candle (lux) during performances. (Reference 2007-11)
  - a. 0 (0)
  - b. 0.2 (2.2)
  - c. 0.5 (5.4)
  - d. 1 (10.8)
  
7. Sprinklers listed in accordance with the requirements of Underwriters Laboratories Standard No. 199 are suitable for use in the non-residential portion of sprinkler systems designed in accordance with NFPA \_\_\_\_\_. (Reference 2007-4)
  - a. 13
  - b. 13D
  - c. 13R
  - d. a and b, above
  - e. a and c, above

8. The RTI value of an automatic sprinkler is its: (Reference 2007-1)
- Response Thermal Indicator.
  - Response Time Index.
  - Response to Incendiaries.
  - Rapid Thermal Index.
9. Single-station smoke alarms that are more than \_\_\_\_ years old should be replaced. (Reference 2007-13)
- 5
  - 6
  - 10
  - 12
10. Temporary standpipe systems installed during construction must consist of at least \_\_\_\_ standpipe riser(s) with at least \_\_\_\_ outlet(s) per floor. (Reference 2007-5)
- one, one
  - one, two
  - two, one
  - two, two
11. NFPA 70, National Electrical Code®, Article 760 applies to all the wiring between the “load side of the overcurrent protection device (circuit breaker) or the power-limited supply (battery) and all connected equipment.” (Reference 2007-12)
- T or F
12. An automatic sprinkler’s response time index is calculated using the thermal element’s operating time, operating temperature, air temperature, a conductivity factor between the heat responsive element and the \_\_\_\_\_ of the wind tunnel. (Reference 2007-1)
- velocity
  - volume
  - length
  - height
  - none of the above
13. In areas served by wet pipe sprinkler systems, or housing dry pipe valve assemblies, the ambient temperature should be maintained at or above \_\_\_\_\_. (Reference 2007-8)
- 32°F (0°C)
  - 40°F (4.4°C)
  - 50°F (10°C)
  - 73°F (22.7°C)
14. In new construction, NFPA 101® Life Safety Code®, requires normal pathway lighting in stairs to be at least \_\_\_\_\_ foot-candle (lux). (Reference 2007-11)
- 1 (10.8)
  - 5 (54)
  - 7.5 (81)
  - 10 (108)
15. Temporary construction standpipes can be dismantled as soon as the roof is installed on a building. (Reference 2007-5)
- T or F
16. When used indoors during construction, liquefied petroleum gas cylinders with capacities greater than \_\_\_\_ pounds (kg) must have a manual shutoff valve and an excess-flow valve. (Reference 2007-7)
- 1.75 (0.79)
  - 1.95 (0.88)
  - 2.00 (0.907)
  - 2.15 (0.975)
  - 2.55 (1.15)
17. In NFPA 70, National Electrical Code®, Article \_\_\_\_ establishes the requirements for optical fiber cable fire alarm circuits. (Reference 2007-12)
- 600
  - 660
  - 760
  - 770
  - none of the above

18. \_\_\_\_\_ codes typically establish the minimum structural requirements for construction. (Reference 2007-6)
- Fire
  - Mechanical
  - Structural steel
  - Building
  - All of the above
19. In a place of public assembly where loose chairs are aligned in rows, they must be connected together in groups of \_\_\_ or more when there are more than \_\_\_\_\_ chairs. (Reference 2007-9)
- 3 or 200
  - 5 or 300
  - 3 or 300
  - 5 or 200
20. Beginning in 1999, Underwriters Laboratories required the manufacturing date code on the back of single station smoke alarms to be printed in plain English. (Reference 207-13)
- T or F**
21. CPVC pipe may be used only in residential sprinkler systems. (Reference 2007-2)
- T or F**
22. CPVC pipe used in automatic sprinkler systems must be covered by an approved thermal barrier. (Reference 2007-2)
- T or F**
23. The expected ambient temperature for spaces where CPVC sprinkler pipe is installed should not exceed \_\_\_\_\_. (Reference 2007-2)
- 125°F (51.6°C)
  - 135°F (57.2°C)
  - 142°F (61.1°C)
  - 150°F (65.6°C)
24. In new construction, the required net clear opening width for an exit door is \_\_\_\_\_ inches (mm). (Reference 2007-10)
- 30 (762)
  - 32 (813)
  - 36 (914)
  - 40 (1016)
25. The maximum aggregate amount of liquefied petroleum gas that is regulated in a building under construction is \_\_\_\_\_ pounds(kg) unless cylinders are manifolded to supply a single heater. (Reference 2007-7)
- not regulated
  - 245 (111)
  - 500 (228)
  - 500 (116)
26. During freezing weather, low point sprinkler drains should remain in the open position to allow excess water accumulations to escape. (Reference 2007-8)
- T or F**
27. Which of the following is not a plastic recognized by NFPA 13 for automatic sprinkler pipe? (Reference 2007-2)
- polybutylene (PB)
  - chlorinated polyvinyl chloride (CPVC)
  - polystyrene (PS)
  - cross-linked polyethylene (PEX)
28. Some automatic sprinklers equipped with O-rings to seal against leakage have been identified as recall targets because they may fail to operate when: (Reference 2007-3)
- their RTI is greater than 50, but less than 80 (m/s)<sup>0.5</sup>.
  - they are connected to a low pressure water supply.
  - the ration of their RTI, divided by their operating temperature in degrees C, exceeds 2.3.
  - they are concealed by listed ceiling plates.

29. CPVC sprinkler pipe installed beneath a smooth flat ceiling must be protected by a thermal barrier or \_\_\_\_\_ sprinklers in accordance with listing limitations. (Reference 2007-2)
- Early Suppression, Fast Response (ESFR)
  - Quick response, standard response or residential
  - Quick response, residential or ESFR
  - Quick response or residential
30. Residential sprinklers are listed in accordance with the requirements of Underwriters Laboratories Standard No. \_\_\_\_\_. (Reference 2007-4)
- 13
  - 199
  - 1500
  - 1626
31. Generally, engineered wooden I-joists may be field-cut to fit the correct length, but otherwise, cutting the flanges is never recommended. (Reference 2007-6)
- T or F**
32. Individual LP gas cylinders used indoors during construction must not exceed \_\_\_\_\_ pounds (kg) water capacity, which is about \_\_\_\_\_ pounds (kg) liquefied petroleum gas capacity. (Reference 2007-7)
- 100, 245 (45, 111)
  - 120, 245 (54, 111)
  - 245, 100 (111, 45)
  - 245, 135 (111, 61.2)
  - 500, 500 (226.6, 226.7)
33. During freezing weather, torches, open flame tools, or steam should not be used to thaw frozen fire protection system pipes. (Reference 2007-8)
- T or F**

Answers: 1. c; 2. T; 3. c; 4. F; 5. b; 6. b; 7. c;  
 8. b; 9. c; 10. a; 11. T; 12. a; 13. b; 14. d; 15. F;  
 16. c; 17. d; 18. d; 19. a; 20. T; 21. F; 22. F; 23. d;  
 24. b; 25. a; 26. F; 27. c; 28. b; 29. d; 30. d; 31. T;  
 32. c; 33. T