



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. Fire-resistance-rating tests are conducted according to procedures found in. (Reference 2007-34)
 - a. ASTM E84.
 - b. UL 255.
 - c. ASTM E119.
 - d. UL 251.
 - e. Both c and d.

2. A fire-resistant-rated assembly that has a 3-hour rating will survive an uncontrolled fire exposure for 180 minutes. (Reference 2007-34)

T or F

3. "Fire resistance" describes an assembly's ability to confine a fire, to continue to perform a given structural function, or both. (Reference 2007-34)

T or F

4. In the United States, the nationally recognized standard for the installation of fire standpipe and hose systems is (Reference 2007-30)
 - a. ICC 27.
 - b. NFPA 1410.
 - c. NFPA 11.
 - d. ASME E-14.7 (a).
 - e. None of the above.

5. The ignition of a gas- or vapor-air mixture by the introduction of an outside source such as a flame, spark, or hot spot is known as: (Reference 2007-37)
 - a. heat flux.
 - b. piloted ignition.
 - c. flame spread.
 - d. lower flammable limits.

6. The mathematical formula for determining electrical amperage when the watts and volts are known is (Reference 2007-27)
 - a. $W/V=A$.
 - b. $V/W=A$.
 - c. $(V*W)0.5/A = A$.
 - d. $W+V = A$.

7. What Federal agency is involved with nation-wide automatic sprinkler recalls? (Reference 2007-31)
 - a. United States Fire Administration.
 - b. Department of Consumer Affairs.
 - c. Consumer Products Safety Commission.
 - d. Board of International Trade and Standards.

8. The interstitial space between the outer and inner wall of double-wall tanks is also known as the (Reference 2007-29)
 - a. mandamus.
 - b. andorulus.
 - c. articulus.
 - d. annulus.

9. NFPA 701, *Standard Methods of Fire Tests for Flame-propagation of Textiles and Films* provides details on _____ type(s) of test methods and apparatus. (Reference 2007-38)

- a. 1
b. 2
c. 3
d. 4
e. None of the above
10. A 3/4-inch (191-mm) outlet flexible sprinkler assembly is 4 feet (1.2 m) long. It is equivalent to how many feet (meters) of 1-inch (254-mm) Schedule 40 pipe? (Reference 2007-32)
- a. 21 (6.4).
b. 22 (6.6).
c. 25 (7.5).
d. It depends upon the manufacturer.
11. Flame spread across porous solids is measured using: (Reference 2007-37)
- a. ASTM D92, Test Method for Flash and Fire Points by Cleveland Open Cup.
b. NFPA 253, Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.
c. ASTM E84, Test Method for Surface Burning Characteristics of Building Materials.
d. ASTM C121, Flame Spread Testing and Measurement.
12. A portable electric heater has a rated wattage of 2,400 watts. It is plugged into a circuit rated at 120 volts. Approximately how many amps of current are being drawn through that circuit? (Reference 2007-27)
- a. 10.
b. 20.
c. 25.
d. 40.
13. The International Fire Code® requires that address numbers on new and existing buildings be not less than _____ inches (mm) tall with a _____-inch (mm) stroke. (Reference 2007-28)
- a. 3 (76.2), 1/2 (12.7)
b. 3 (76.2), 3/4 (19.1)
c. 4 (102), 1/2 (12.7)
d. None of the above, the minimum size is determined by the local jurisdiction.
14. Air pressure should never be used to pressure tanks that contain flammable or combustible liquids or vapors. (Reference 2007-29)
- T or F
15. The interstitial spaces (annulus) of vertical above-ground flammable or combustible liquid storage tanks should be pressure tested at between _____ psi0g (kPa) and _____ psig (kPa) or vacuum tested at 5.3 in Hg (18 kPa). (Reference 2007-29)
- a. 0.5 (3.5), 15 (105)
b. 0.5 (3.5), 1.5 (10)
c. 1.5 (10), 2.5 (17)
d. 1.5 (10), 3 (20)
16. Field set standpipe hose outlets are designed and manufactured so their pressure settings can be adjusted after the device is installed on the standpipe riser. (Reference 2007-30)
- T or F
17. _____ is a method of securing cylinders in a tight mass using a contiguous three-point contact system where all cylinders in the group have at least three points of contact with other cylinders, walls, or bracing. (Reference 2007-39)
- a. Stacking
b. Strapping
c. Massing
d. Nesting
e. None of the above, cylinders must be chained to a fixed object.
18. According to NFPA 14, Standard for the Installation of Standpipe and Hose Systems, the maximum operating pressure on a standpipe system can be up to _____ psi (kPa). (Reference 2007-30)
- a. 175 (1,206)
b. 200 (1,378)
c. 250 (1,723)
d. 350 (2,413)

19. The annular space of a fire-resistive-rated ceiling membrane should be protected by: (Reference 2007-35)
- approved firestopping materials.
 - approved draftstopping materials.
 - a sprinkler escutcheon.
 - latex caulk.
 - either a or c.
20. How many bends are permitted in flexible sprinkler branch lines? (Reference 2007-32)
- None.
 - Two.
 - Three.
 - Four.
 - It depends upon the manufacturer.
21. The minimum bend radius in flexible sprinkler branch lines is _____ inches (cm) (Reference 2007-32)
- 3 (7.62)
 - 4 (10.2)
 - 1/2 the length of the flexible branch line
 - 5 (12.7)
22. In NFPA 701, *Standard Methods of Fire Tests for Flame-propagation of Textiles and Films*, Test Method 2, a 47.25-inch long (1,200-mm) specimen is exposed to a 11.0 ± 0.5 inch (280 mm \pm 12 mm) flame inside a four-sided test cabinet. When any specimen continues flaming for more than _____ seconds after the test flame is removed from contact with the specimen, it is considered to have failed the test. (Reference 2007-38)
- 2
 - 4
 - 6
 - 20
23. The minimum thermal protection for cross-linked polyethylene (PEX) tube used in sprinkler systems is (Reference 2007-33)
- not required for wet-pipe sprinkler systems.
 - required only for wet-pipe sprinkler systems.
 - one layer of 3/8-inch (9.5-mm) gypsum wallboard, a suspended membrane ceiling with lay-in panels or tiles at least 0.35 pounds per square foot (1,708 kg/m²) when installed with metallic support grids, 1/2-inch (12.7-mm) plywood soffits or one layer of 1/2-inch (12.7-mm) plywood.
 - two layers of 5/8-inch (15.8-mm) Type-X gypsum wallboard.
24. In fire-resistive-rated walls or partitions, where steel electrical boxes not exceeding 16 in² and the total area of penetrations does not exceed 100 in² (64,520 mm²) in any 100 ft² (9.3 m²), and the boxes are adequately spaced apart on opposite sides of the wall, the firestopping material in the annular space is not required to meet ASTM E 814, Standard Test Method for Fire Tests of Through-Penetration Fire Stops or UL 1479, *Standard for Safety for Fire Tests of Through-Penetration Fire Stops*. (Reference 2007-35)
- T or F
25. Heat flux is measure of a material's thermal conductivity. It is often measured in Btus/second/ft² (Watt/m²) and is represented in formulas by the symbol "Q". (Reference 2007-37)
- T or F
26. A heat detector is listed to protect an area measuring 18' x 18' (5.49 x 5.49 m), or 324 ft² (30.14 m²). What is its adjusted spacing for a ceiling that is 13 feet (3.96 m) high? (Reference 2007-36)
- 8.4 feet (2.56 m).
 - 9.3 feet (2.84 m).
 - 10.9 feet (3.32 m).
 - 13.2 feet (4.02 m).
 - 15.12 feet (4.6).

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