

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. A thermoset is a polymer that solidifies or “sets” irreversibly when heated or cured. (Coffee Break Training 2008-28)

True or False

2. For standard spray sprinklers, a sprinkler at least ____ inches (mm) from a noncontinuous obstruction is no longer considered “obstructed.” (Coffee Break Training 2008-38)

- a. 6 (152)
- b. 18 (457)
- c. 22 (559)
- d. 24 (610)

3. A roof covering an entirely noncombustible exterior exit corridor with exterior walls at least ____ percent open does not require automatic sprinkler protection. (Coffee Break Training 2008-35)

- a. 25
- b. 50
- c. 75
- d. 88

4. The gap around a pendent sprinkler in a ceiling assembly is known as the _____ (Coffee Break Training 2008-37)

- a. annular space.
- b. vent release space.
- c. expansion space.
- d. thermal nonentrapment space.

5. In order to omit sprinklers from electrical rooms, the equipment must be _____ electrical equipment. (Coffee Break Training 2008-36)

- a. oil-filled
- b. PCB-free oil-filled
- c. hydrostatically tested
- d. dry-type

6. Asphalt kettles used with roofing operations should be at least _____ feet (m) from any combustible materials, combustible building surface, or any building opening. (Coffee Break Training 2008-34)

- a. 20 (6.9)
- b. 25 (7.6)
- c. 30 (9.8)
- d. 50 (15.2)

7. Nationally adopted standards require that all fire hydrants be inspected and tested at least once year. (Coffee Break Training 2008-32)

True or False

8. Polybutadiene, polyethylene, butyl rubber, acrylonitrile-butadiene-styrene copolymer, and fiberglass-reinforced polyester are examples of Group ____ plastics. (Coffee Break Training 2008-27)

- a. A
- b. B
- c. C
- d. D

9. Two approved ___-type portable fire extinguishers must be provided and maintained with 25 feet of an operating asphalt kettle used with roofing operations. (*Coffee Break Training 2008-34*)

- a. A
- b. BC
- c. ABC
- d. D

10. Escutcheons used with flush-type, concealed, or recessed sprinklers must be part of a listed sprinkler assembly. (*Coffee Break Training 2008-37*)

True or False

11. For fire protection purposes, plastics, elastomers, and rubber are divided into ___ “groups” based on their relative fire characteristics of both heat of combustion and heat release rate (HRR). (*Coffee Break Training 2008-27*)

- a. Two
- b. Three
- c. Four
- d. Six

12. Metal lath and plaster, ceramic tile, quarry tile, other noncombustible materials or assembly of noncombustible materials, or materials and products that are listed for the purpose of reducing clearance may be used to reduce the clearance of hoods, grease-removal devices, exhaust fans, and ducts from combustible materials to 0 inches, according to National Fire Protection Agency (NFPA) Standard 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*. (*Coffee Break Training 2008-30*)

True or False

13. According to NFPA 291, *Recommended Practice for Fire Flow Testing and Marking of Hydrants*, a fire hydrant with a green-colored bonnet and caps is rated at _____. (*Coffee Break Training 2008-33*)

- a. less than 500 gallons per minute (1,900 L/min).
- b. 500 to 999 gpm (1,900 to 3,780 L/min).
- c. 1,000 to 1,499 gpm (3,785 to 5,675 L/min).
- d. 1,500 gpm (5,680 L/min) or greater.

14. According to NFPA 291, all fire hydrant barrels should be painted chrome yellow except in cases where the jurisdiction has selected another color. (*Coffee Break Training 2008-33*)

True or False

15. Clearances from combustibles for listed heating appliances must be in accordance with the manufacturer’s installation instructions. (*Coffee Break Training 2008-31*)

True or False

16. Sprinklers must be installed over areas where combustibles are stored or handled under roofs, canopies, or porte-cocheres attached to fully sprinklered buildings. (*Coffee Break Training 2008-35*)

True or False

17. What clearance from combustible materials is required for an unlisted space heater with a surface temperature of 1,000 °F (538 °C)? (*Coffee Break Training 2008-31*)

- a. 14 inches (356 mm).
- b. 18 inches (457 mm).
- c. 36 inches (914 mm).
- d. None of the above. The code official may establish minimum clearances.

18. Sprinkler escutcheons may be made from metal, plastic, or other approved material. (*Coffee Break Training 2008-37*)

True or False

19. According to NFPA 96, hoods, grease-removal devices, exhaust fans, and ducts must be located at least _____ inches (mm) from combustible materials. (*Coffee Break Training 2008-30*)

- a. 14 (356)
- b. 18 (457)
- c. 36 (914)
- d. **None of the above. The code official may establish minimum clearances.**

20. Where fire sprinkler systems penetrate fire-resistance-rated ceiling assemblies, building codes require the gap around the pipe to be sealed with firestopping material or covered with an approved metallic escutcheon. (*Coffee Break Training 2008-37*)

True or False

21. Expanded plastics are created when the plastic beads are placed into a mold, and a blowing agent or gas—usually pentane—is dissolved in the plastic. (*Coffee Break Training 2008-29*)

True or False

22. In electrical equipment rooms, hoods or shields installed to protect important electrical equipment from sprinkler discharge must be noncombustible. (*Coffee Break Training 2008-36*)

True or False

23. All pendent sprinklers that penetrate a ceiling assembly must be provided with an escutcheon. (*Coffee Break Training 2008-37*)

True or False

24. An operating asphalt kettle used with roofing operations should be attended by not less than _____ person(s) who knows how to operate the device and is aware of its hazards. (*Coffee Break Training 2008-34*)

- a. **One**
- b. **Two**
- c. **Three**
- d. **None of the above, kettles are automatically controlled.**

25. Expanded plastics tend to be less combustible than unexpanded plastics due to the increased surface area of the expanded plastic, the entrained air or gas in the expanded beads, and the overall lighter density of the final product. (*Coffee Break Training 2008-29*)

True or False

26. According to NFPA 291, fire hydrants rated at less than _____ psi (bar) should have the rated pressure stenciled in black on the hydrant top. (*Coffee Break Training 2008-33*)

- a. 5 (0.35)
- b. 10 (0.7)
- c. 15 (1.05)
- d. 20 (1.4)

27. NFPA 13; *Standard for the Installation of Sprinkler Systems*, requires automatic sprinklers be installed in all electrical transformer rooms. (*Coffee Break Training 2008-36*)

True or False

28. Clearances from combustibles for unlisted heating appliances must be in accordance with the requirements of the code official, who may require testing or analysis to verify minimum clearances. (*Coffee Break Training 2008-31*)

True or False

29. A thermoplastic is a polymer in which the molecules are held together by weak secondary bonding forces that soften when exposed to heat and return to their original condition when cooled back down to room temperature. (*Coffee Break Training 2008-28*)

True or False

30. Melamine, polyvinylidene fluoride, urea formaldehyde, and polyvinyl chloride are examples of Group _____ plastics. (*Coffee Break Training 2008-27*)
- A
 - B
 - C
 - D
31. All exterior canopies more than 4 feet (1.2 m) wide attached to fully sprinklered buildings must be protected by automatic sprinklers. (*Coffee Break Training 2008-35*)
- Two
 - Three
 - Four
 - Five
32. According to NFPA 291, when private hydrants are located on public streets, they should be painted red or some other color to distinguish them from public hydrants. (*Coffee Break Training 2008-33*)
- 18 (457)
 - 36 (914)
 - None of the above.
35. Extended coverage and residential sprinklers must meet the “_____ -times rule” for distance from noncontinuous obstructions in accordance with NFPA 13. (*Coffee Break Training 2008-38*)

True or False

32. According to NFPA 291, when private hydrants are located on public streets, they should be painted red or some other color to distinguish them from public hydrants. (*Coffee Break Training 2008-33*)

True or False

33. Operating asphalt kettles used in roofing operations should be kept at least _____ feet (m) from exits or other means of egress. (*Coffee Break Training 2008-34*)
- 5 (1.5)
 - 7 (2.1)
 - 10 (3)
 - 20 (6.9)
34. According to NFPA 96, clearance between combustible materials and hoods, grease-removal devices, exhaust fans, and ducts may be reduced to _____ inches (mm) if the combustible material is protected by 0.027 inches (0.69 mm) (22 gauge) sheet metal on 1 inches (25 mm) mineral wool batts or ceramic fiber blanket reinforced with wire mesh or equivalent spaced out 1 inches (25 mm) on noncombustible spacers. (*Coffee Break Training 2008-30*)
- 3 (76)
 - 9 inches (228)

Answers: 1. T; 2. d; 3. b; 4. a; 5. d; 6. a; 7. F; 8. a; 9. c; 10. T; 11. b; 12. T; 13. c; 14. T; 15. T; 16. T; 17. d; 18. T; 19. b; 20. T; 21. T; 22. T; 23. F; 24. a; 25. F; 26. d; 27. F; 28. T; 29. T; 30. c; 31. F; 32. T; 33. c; 34. a; 35. c