



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 _____

- According to the National Fire Protection Association (NFPA) 20, Standard for the Installation of Stationary Pumps for Fire Protection, each diesel engine driving a fire pump must have at least ____ storage battery units for starting. (Coffee Break Training 2008-3)
 - 2
 - 3
 - 4
 - 6
- Explosives that have a mass explosion hazard affecting almost the entire load instantaneously are classified as United Nations/Department of Transportation (UN/DOT) Division ____ (Coffee Break Training 2008-10)
 - 1.1.
 - 1.2.
 - 1.3.
 - 1.4.
- Signs of cavitation in a fire pump include _____ (Coffee Break Training 2008-4)
 - a rattling sound resembling gravel going through the impellers.
 - excessive pump vibration.
 - a sudden pressure or volume loss.
 - increasing pump speed without a corresponding increase in volume or pressure.
 - all of the above.
- Flame detectors sense invisible energy at only one end of the light spectrum. (Coffee Break Training 2008-2)

T or F
- In a non-highrise building, a fire pump room or building that is not sprinklered should be separated from the rest of the building by _____ rated construction or ____ feet (m). (Coffee Break Training 2008-5)
 - 1-hour; 25 (7.6 m)
 - 1-hour; 50 (15.3)
 - 2-hour; 25 (7.6 m)
 - 2-hour; 50 (15.3m)
- Flashlights may be used to satisfy the emergency lighting provisions in the fire pump room. (Coffee Break Training 2008-6)

T or F
- Access to a fire escape stair should be directly to a balcony, landing, or platform that should be not more than ____ inches (mm) below the floor level or ____ inches (mm) below the sill. (Coffee Break Training 2008-1)
 - 8 (205 mm); 9 (229 mm)
 - 18 (457 mm); 18 (457 mm)
 - 9 (229 mm); 18 (457 mm)
 - 8 (205 mm); 18 (457 mm)
- When cavitation occurs, the liquid vapor released into the low-pressure regions of a fire pump forms _____ (Coffee Break Training 2008-4)
 - bubbles.
 - gel.
 - superheated steam.
 - condensation.

9. A liquid having a flashpoint of 62° F (17° C) and a boiling temperature of 68° F (20° C) is considered to be a Class _____ liquid. (Coffee Break Training 2008-12)
- I-A
 - I-B
 - I-C
 - II
 - III-A
10. In a highrise building, an indoor fire pump assembly must be separated from the rest of the building by _____ fire-resistive rated construction. (Coffee Break Training 2008-5)
- 1-hour
 - 90-minute
 - 2-hour
 - 3-hour
11. Openings near fire escape stairs should be protected with an approved fire door or fire window assembly having a minimum _____-minute fire-resistance rating. (Coffee Break Training 2008-1)
- 20
 - 30
 - 45
 - 60
12. The nationally recognized standard for the “Installation of Stationary Pumps for Fire Protection” is _____ (Coffee Break Training 2008-5)
- Underwriters Laboratories (UL) 1726.
 - American Society for Testing and Materials (ASTM) 14A.
 - NFPA 13.
 - NFPA 20.
13. Emergency lights may not be connected to any battery used for starting diesel engines that drive fire pumps. (Coffee Break Training 2008-6)
- T or F
14. Current-carrying parts of batteries used for starting diesel engines driving a fire pump must be at least _____ inches (mm) above the floor. (Coffee Break Training 2008-3)
- 12 (305 mm)
 - 14 (356 mm)
 - 24 (610 mm)
 - 36 (914 mm)
15. Fire pump rooms enclosing diesel engine fire pump drivers and day tanks must be protected with an automatic sprinkler system. (Coffee Break Training 2008-6)
- T or F
16. Small pressure-maintenance or “jockey” pumps are installed to maintain a _____ pressure on a fire protection system. (Coffee Break Training 2008-7)
- low
 - constant
 - high
 - precavitalional
17. The jockey pump **start** point should be at least 10 psi (0.68 bar) less than the jockey pump **stop** point. (Coffee Break Training 2008-7)
- T or F
18. All jockey pumps used on fire protection systems must be centrifugal type. (Coffee Break Training 2008-7)
- T or F
19. A jockey pump should be sized to make up the allowable leakage rate within _____ minutes or _____ gpm (L/min). (Coffee Break Training 2008-7)
- 10; 1 (3.8 L/pm)
 - 15; 1 (3.8 L/pm)
 - 20; 2 (7.7 L/pm)
 - 20; 4 (15.6 L/pm)

20. Plastic or other nonmetallic rubbish containers must be tested to ASTM E1354 or NFPA 271, *Standard Method of Test for Heat and Visible Smoke Release Rates for Materials and Products using an Oxygen Consumption Calorimeter*. (Coffee Break Training 2008-8)

T or F

21. According to NFPA 20, batteries used for starting diesel engines driving a fire pump must have adequate power to last _____ consecutive cycles of 15 seconds of “cranking” and 15 seconds of “rest.” (Coffee Break Training 2008-3)

- a. 2
- b. 4
- c. 6
- d. 8

22. A “fire-, theft- and weather-resistant ‘day box’ or portable structure for temporary explosive storage” is the description of a Type ____ magazine. (Coffee Break Training 2008-9)

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

23. When volatile Class I flammable liquids are poured or dispensed through air, they can accumulate a _____ that, under certain conditions, can ignite the liquid’s vapors with catastrophic results. (Coffee Break Training 2008-13)

- a. static charge
- b. spill problem
- c. friction discharge
- d. grounding discharge

24. Explosive materials are classified by the _____ in accordance with Title 18 United States Code, *Importation, Manufacture, Distribution and Storage of Explosive Materials*. (Coffee Break Training 2008-10)

- a. United Nations
- b. United States Department of Transportation
- c. United States Coast Guard
- d. NFPA

25. Permanent bonding connections between two vessels storing Class I flammable liquids can be made using _____ or braided wires, and must incorporate screw-type clamps, _____ connections, or other similar means. (Coffee Break Training 2008-13)

- a. solid; break-away
- b. flexible; self-closing
- c. solid; welded
- d. flexible; welded
- e. solid; self-closing

26. Eccentric reducers installed on the suction side of a fire pump assembly should be installed with their “flat side” parallel to the floor and on the top. (Coffee Break Training 2008-4)

T or F

27. Explosives that have a mass explosion hazard but are so insensitive there is very little probability of initiation or transition from burning to detonation under normal transportation conditions are classified as UN/DOT Division _____. (Coffee Break Training 2008-10)

- a. 1.1.
- b. 1.3.
- c. 1.5.
- d. insensitive materials.

28. UN/DOT Division 1.6 explosives may be stored in a Type 1, 2, 3, 4, or 5 magazine. (Coffee Break Training 2008-11)

T or F

29. UN/DOT Division 1.1 explosives must be stored in a Type 1, 2, or 3 magazine. (Coffee Break Training 2008-11)

T or F

30. Except for internal-combustion diesel-engine-driven fire pumps, pump rooms should not be ventilated so cold air will not get in and cause the water to freeze. (Coffee Break Training 2008-6)

T or F

31. A liquid having a flashpoint of $\geq 73^\circ\text{F}$ ($\geq 23^\circ\text{C}$) but $< 100^\circ\text{F}$ ($< 38^\circ\text{C}$) is considered to be a Class _____ liquid. (Coffee Break Training 2008-12)

- a. I-A
- b. I-B
- c. I-C
- d. II
- e. III-A

32. Laboratory assessments that are done to obtain flammable and combustible liquid flashpoint values are performed in accordance with ASTM Standard D56 Test Method for Flash Point by Tag Closed Tester or D93 Test Method for Flash Point by Pensky-Martens Closed Cup Tester. (Coffee Break Training 2008-12)

T or F

33. Explosives magazines must be constructed in accordance with NFPA 495, Explosive Materials Code, NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sale of Fireworks and Pyrotechnic Articles, or Title 27 Code of Federal Regulations Commerce in Explosives. (Coffee Break Training 2008-11)

T or F

34. A liquid having a flashpoint of 245°F (118°C) and no known boiling temperature is considered to be a Class _____ liquid. (Coffee Break Training 2008-12)

- a. I-B
- b. I-C
- c. II
- d. III-A
- e. III-B

35. Indoor explosives magazines must meet the construction requirements of Type _____, _____, _____ or magazines, and must be fire- and theft-resistant. (Coffee Break Training 2008-9)

- a. 1, 2, or 3
- b. 2, 4, or 6
- c. 2, 3, or 4
- d. 2, 4, or 5

36. Bonding cables to equalize electrical potential between two objects must be durable and of high electrical resistance. (Coffee Break Training 2008-13)

T or F

37. Some common examples of Class I flammable liquids include _____ (Coffee Break Training 2008-13)

- a. alcohol.
- b. toluene.
- c. acetone.
- d. benzene.
- e. all of the above.

38. Ultraviolet-sensitive flame detectors may be triggered by other sources of interference, such as X-rays, sunlight, reflected sunlight, Gamma rays, lightning, arc welding, or fluorescent lighting. (Coffee Break Training 2008-2)

T or F

Answers: 1. a; 2. a; 3. e; 4. f; 5. d; 6. f; 7. d; 8. a; 9. a; 10. c; 11. c; 12. d; 13. t; 14. a; 15. t; 16. b; 17. t; 18. f; 19. a; 20. t; 21. c; 22. c; 23. a; 24. b; 25. c; 26. t; 27. c; 28. t; 29. t; 30. f; 31. c; 32. t; 33. t; 34. e; 35. d; 36. f; 37. e; 38. t