

1. In the fire service, division of labor is necessary to:

- A. assign responsibility.
- B. prevent duplication of effort.
- C. make specific assignments.
- D. All of the above.

Answer: D

2. Policies are examples of standing plans designed to provide:

- A. staffing requirement guidelines.
- B. guidance for decision making.
- C. problem-solving.
- D. communications.

Answer: B

3. A procedure is a(n):

- A. guide to thinking.
- B. detailed guide to action.
- C. guide to decision making.
- D. interpretation.

Answer: B

4. Building codes are intended for the life safety of:

- A. designers.
- B. occupants.
- C. neighbors.
- D. firefighters.

Answer: B

5. United States fire loss statistics show that most structure fires, most fire damage, and most injuries and fatalities occur in _____ occupancies.

- A. commercial
- B. industrial
- C. institutional
- D. residential

Answer: D

6. NFPA _____ is the standard that contains minimum requirements and procedures for a safety and health program.

- A. 1901
- B. 1932
- C. 1001
- D. 1500

Answer: D

7. The tracking of personnel working at an incident requires a system that is standardized for every incident to establish:

- A. accountability.
- B. chain of command.
- C. unity of command.
- D. span of control.

Answer: A

8. At a **minimum**, firefighters must work in teams of _____ when entering an

involved structure?

- A. two B. three C. seven D. five

Answer: A

9. When lifting rescued persons or heavy objects firefighters should:

- A. use their back to lift, not their legs. B. use their legs to lift, not their back.
C. try to twist and reach at the same time. D. squat and lift with shoulders and arms.

Answer: B

10. Protective equipment used during the maintenance of equipment such as saws and generators include all of the following **except**:

- A. gloves. B. hearing protection.
C. eye protection. D. Nomex hood.

Answer: D

11. A component of NIMS that should be used on every incident which is either written or unwritten is:

- A. the use of an IC. B. the PIO.
C. an IAP. D. a safety officer.

Answer: C

12. The type of call, action taken, number of injuries or fatalities, and the property usage information are all entries to be included on a(n) _____ Report.

- A. United States Fire Administration
B. Incident Management System
C. Advanced Cardiac Life Support
D. National Fire Incident Reporting System

Answer: D

13. A uniform data collection system used by most departments to track incident information is known as the:

- A. National Fire Incident Reporting System.
B. National Fire Incident Recording System.
C. First National Incident Reporting System.
D. First National Incident Response System.

Answer: A

14. Which of the following statements regarding fire reports is **incorrect**?

- A. Information found in fire reports can be used by insurance companies.
- B. Information reported on fire reports is used by private manufacturing companies.
- C. Fire reports are public records.
- D. National Fire Incident Reporting System Reports do **not** need to be completed for Emergency Medical Services runs.

Answer: D

15. Which of the following statements regarding fire incident reports is **incorrect**?

- A. Reports are used only for statistical information.
- B. They are legal documents even if they are not signed.
- C. The address location must include both owner and occupant.
- D. Local fire information becomes part of the national database.

Answer: A

16. National Fire Incident Reporting System information is transmitted to the:

- A. U. S. Fire Administration.
- B. State Fire Marshal's office.
- C. insurance companies, if requested.
- D. All of the above.

Answer: D

17. **Directions:** Read the following statements regarding how to obtain necessary information for reports and select your answer from choices A through D.

Statement 1: The property owner and/or occupant is the primary source of information.

Statement 2: Bystanders or eyewitnesses should be questioned.

Statement 3: The model number and serial number of any equipment involved in the fire should be recorded.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All the statements are true.

Answer: D

18. **Directions:** Read the following statements regarding reports and select your answer from choices A through D.

Statement 1: Information in reports must be complete, clear and concise.

Statement 2: Improper or inadequate documentation can have long term negative

consequences for the fire department.

Statement 3: Fire reports are considered public records under the Freedom of Information Act.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All three statements are true.

Answer: D

19. The two **most common** ways the incident commander orders firefighters to evacuate a structure are to broadcast a radio message and:

- A. page all firefighters to respond.
- B. implement an accountability system.
- C. contact dispatch to activate PASS device.
- D. sound an audible warning.

Answer: D

20. Audible warning devices for emergency evacuation should be:

- A. broadcast several times.
- B. heard for at least 500 feet.
- C. used to announce the need for multiple alarms.
- D. used to give an "all clear" on scene.

Answer: A

21. It is important that the communication center be kept advised of the actions taken at emergency scenes. Situation status/progress reports should include all of the following **except**:

- A. change in command location.
- B. exposures present.
- C. direction of fire spread.
- D. number of units in staging.

Answer: D

22. Fire departments that operate radio equipment must hold radio licenses from the:

- A. Federal Central Communications.
- B. National Emergency Broadcasting.
- C. Federal Communications Commission.
- D. National Radio Communications.

Answer: C

23. The _____ System can significantly shorten response time or enable a dispatcher to handle a greater volume of calls.

- A. Voice Recording
- B. Radio Logging

C. Wireless Fax

D. Computer-Aided Dispatch

Answer: D

24. In fire departments that have access to multiple radio channels, emergency operations should be:

A. on multichannels also.

B. run by cell phone so the radio is not tied up.

C. assigned a separate channel dedicated for use on that scene only.

D. Both A and C are correct.

Answer: D

25. A special communications device which allows the hearing or speech impaired to communicate via telephone is known as a _____ system.

A. commercial phone

B. TDD/TTY text phone

C. direct line

D. wireless

Answer: B

26. The important difference between Basic 911 and Enhanced 911 is that:

A. enhanced systems have the capability to provide the caller's telephone number and address.

B. enhanced systems are used only in rural areas.

C. basic systems are more reliable than enhanced.

D. basic systems have the capability to provide the caller's telephone number and address.

Answer: A

27. Computer-aided dispatch is:

A. a computer-based, automated system that assists the telecommunicator in assessing dispatch information and recommends responses.

B. an organized collection of similar facts.

C. typically used by operations chief officers in the fire service.

D. an emergency alerting device primarily used by volunteer department personnel to receive reports of emergency incidents.

Answer: A

28. The communication system that **does not** have access to the Public Switch Network, but is connected between two points, is a _____ system.

A. commercial phone

B. TDD/TTY text phone

C. direct line

D. routine line

Answer: C

29. You are the acting officer in charge of a ladder company, working at a structure fire. You receive a radio message, "Command to Ladder 1. We need you to ventilate the roof, directly over the fire area." Which of the following describes the **most correct** way to respond?

- A. Transmit immediately because time is of the essence.
- B. Verify the instruction received by restating the information during your response.
- C. Use a 10-code to keep the message short and not waste important air time.
- D. Use a moderate rate of speaking to allow for easy understanding by the I.C.

Answer: B

30. Situation status/progress reports should be made ten minutes into the incident and at _____ minute intervals thereafter until the incident is under control.

- A. 5 - 10
- B. 25 - 30
- C. 10 - 20
- D. exactly 30

Answer: C

31. When a company officer arrives first on a fire scene, the officer is in command until:

- A. the fire is declared under control.
- B. a chief officer arrives and may choose to assume command.
- C. the chief of the department arrives.
- D. arrival of the senior shift officer.

Answer: B

32. An employee becomes frustrated because he/she cannot comply with conflicting orders from different bosses. This situation was caused by a violation of:

- A. chain of command.
- B. division of labor.
- C. span of control.
- D. unity of command.

Answer: D

33. Which of the following is one of the major staff functions/components of the Incident Management System?

- A. PIO
- B. Planning
- C. Liaison
- D. Safety Officer

Answer: B

34. Which of the following **is not** one of the characteristics of an Incident Management System?

- A. Common terminology
- B. Unity of command
- C. Modular organization
- D. Prefire plans

Answer: D

35. Which of the following **is not** a major functional component of the Incident

Management System?

- A. Groups B. Planning C. Logistics D. Operations

Answer: A

36. Under normal conditions, only a(n) _____ may order multiple alarms or additional resources for large-scale incidents.

- A. logistics officer B. planning officer
C. safety operations officer D. incident commander

Answer: D

37. As it relates to the Incident Management System, a division refers to:

- A. firefighters assigned to a single task.
B. a part of a strike team.
C. a geographic location or designation.
D. a supporting branch for the logistics team.

Answer: C

38. Which of the following **is not** a characteristic of the Incident Management System?

- A. Integrated communications B. Predesignated facilities
C. Modular organization D. Independent action plans

Answer: D

39. The Incident Management System should:

- A. be fully implemented for all situations.
B. be initiated by the first fire unit on the scene.
C. provide procedures that perfectly fit all departments.
D. eliminate the need for mutual aid assistance.

Answer: B

40. In the Incident Management System, the _____ has authority over the ordering, releasing, and controlling of resources.

- A. Incident Commander B. Logistics Officer
C. Operations Officer D. Staging Officer

Answer: A

41. In the Incident Management System, _____ are functional crews assigned to perform a specific task such as ventilation or rescue.

- A. divisions B. groups C. single resources D. branches

Answer: B

42. Within the Incident Management System, the positions of Safety, Liaison, and Information are:

- A. divisions.
- B. groups.
- C. functional areas.
- D. command staff positions.

Answer: D

43. The Incident Management System is **best** defined as:

- A. the overall plan developed and used to control an incident.
- B. an organized, systematic method for the command, control, and management of an emergency incident.
- C. the ability to start small and expand if an incident becomes more complex.
- D. one designated leader or officer to command an incident.

Answer: B

44. What is the optimal number of individuals that one person should be supervising at an emergency incident?

- A. Up to two
- B. Eight to ten
- C. Three to seven
- D. Eight or more

Answer: C

45. In order for the Incident Management System to function properly, it must contain all of the following components **except**:

- A. common terminology.
- B. integrated communications.
- C. all personnel from a single agency.
- D. consolidated incident action plans.

Answer: C

46. Under the Incident Management System, the _____ is responsible for determining the strategic goals for control of an incident.

- A. Incident Commander
- B. Operations Officer
- C. Planning Officer
- D. Administration Officer

Answer: A

47. Under the Incident Management System, the _____ is responsible for implementing the tactical assignments to meet the strategic goal.

- A. Incident Commander
- B. Operations Chief
- C. Planning Chief
- D. Safety Officer

Answer: B

48. Under the Incident Management System, the _____ Officer is responsible for providing factual and accurate information to the media.

A. Safety

B. Liaison

C. Staffing

D. Public Information

Answer: D

Directions: Match the characteristics of IMS in Column A with its description in Column B.

Column A

Column B

49. Modular organization

50. Span of control

51. Unified command

52. Unity of command

- A. Each person has only one direct supervisor
- B. Used when multiple agencies or multiple jurisdictions have responsibility for control of an incident
- C. The ability to start small and expand if an incident becomes more complex
- D. Organizes an incident by breaking down the overall strategy into smaller tasks
- E. The number of subordinates who report to one supervisor at any level within the organization

Answer: C,E,B,A

53. **Directions:** Read the following statements regarding the Incident Management System (IMS) select your answer from choices A through D.

Statement 1: The IMS assumes that the first arriving unit at an incident assumes command.

Statement 2: The individual who is in charge of the first arriving unit is the incident commander.

Statement 3: If a chief officer arrives after command has been established, he may assume command.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statements 1 and 2 are false; statement 3 is true.
- D. All three statements are true.

Answer: D

54. A situation status progress report is provided upon:

- A. termination of the incident.
- B. arrival.
- C. transfer of command.
- D. setup of the staging area.

Answer: C

Directions: Match the Incident Management System term in Column A with its description in Column B.

Column A

Column B

- 55. Branch
- 56. Division
- 57. Group
- 58. Crew

- A. Responsible for operations within an assigned geographical area
- B. Work on the same task or objective
- C. Maintains span of control over subordinate organization units
- D. One of a set number of resources of the same type and kind
- E. Works an assigned task, but without apparatus

Answer: C,A,B,E

59. Transfer of command is **best** accomplished:

- A. by radio.
- B. face to face.
- C. by cell phone.
- D. early on in the incident.

Answer: B

60. **Directions:** Read the following statements regarding transfer of command and select your answer from choices A through D.

Statement 1: The first arriving fire department member must be prepared to transfer command to the next arriving individual with a higher authority.

Statement 2: Transfer of command must include a situation status progress report.

Statement 3: Command can only be transferred to someone who is on scene.

- A. Statement 1 is true, statements 2 and 3 are false.
- B. Statements 1 and 2 are true, statement 3 is false.
- C. Statements 1 and 2 are false, statement 3 is true.
- D. All three statements are true.

Answer: D

61. When a higher ranking officer arrives on the scene, is that higher ranking officer obligated to assume command from an existing Incident Commander who is of lower rank?

- A. Yes, this must always take place.
- B. No, this is expressly forbidden; lower ranking officers are to be left in position.
- C. Yes, in Class II or III hazardous materials situations; not otherwise.
- D. Some departments require this, while others leave it to the higher ranking officer's discretion.

Answer: D

62. For what types and sizes of incident is the Incident Management System (IMS) designed?

- A. Multi-agency only, medium or large size
- B. Multi-agency only, any size
- C. Single agency only, large size
- D. All types and sizes

Answer: D

63. In the Incident Management System structure, who is the one person ultimately responsible for managing an incident?

- | | |
|---------------------------|-------------------------|
| A. A Chief Officer | B. The Planning Chief |
| C. The Incident Commander | D. The Operations Chief |

Answer: C

64. The command post should be located:

- | | |
|---|-------------------------------------|
| A. on the front corner of the building. | B. in a nearby, protected location. |
| C. at the forward observation limit. | D. behind the structure. |

Answer: B

65. Who is the Incident Commander's point of contact for representatives from outside agencies?

- | | |
|--------------------------|------------------------------|
| A. The Planning Director | B. The Communications Center |
| C. The Liaison Officer | D. The Staging Chief |

Answer: C

66. By what title or rank are the heads of the four major functional components of the Incident Management System known?

- A. Director B. Chief C. Manager D. Officer

Answer: B

67. Which Incident Management System section is responsible for the management of all actions that are directly related to controlling the incident?

- A. Logistics B. Operations C. Tactics D. Planning

Answer: B

68. Which Incident Management System section is responsible for keeping vehicles fueled and providing food for fire fighters?

- A. Logistics B. Liaison C. Operations D. Safety

Answer: A

69. Which Incident Management System section is responsible for the cost accounting of an incident?

- A. Legal B. Finance/Administration
C. Operations D. Safety

Answer: B

70. What term usually refers to companies or crews working on the same task or objective, although not necessarily in the same location.

- A. Task B. Group C. Regiment D. Project Team

Answer: B

71. What Incident Management System term can refer to companies or crews that have been assigned on the basis of either geography or function?

- A. Division B. Strike force C. Recon D. Branch

Answer: A

72. A branch level supervisor is known as a branch:

- A. chief. B. director. C. manager. D. officer.

Answer: B

73. The term used for areas adjacent to a building is:

- A. rotundas. B. exposures. C. sectors. D. stages.

Answer: B

74. What would be the incident command designation for the 7th floor on a high-rise?

- A. Sector 7 B. Sixth floor C. Division 7 D. Level 6

Answer: C

75. When is the first-arriving company officer allowed to pass command?

- A. Only when they feel intimidated by the situation facing them
B. Any time they feel that one of the other officers known to be responding is equally or better qualified
C. Only when their direct involvement in operations will have a significant impact on the outcome of the incident
D. Never

Answer: C

76. If an Incident Commander requested three emergency medical services (EMS) strike teams, what would be dispatched?

- A. Three EMS supervisors
qq Three first alarm assignments accompanied by EMS
B.
C. Three high-angle rescue teams with equipment and vehicles
D. Fifteen ambulances and three strike team leaders

Answer: D

77. What type of fire service personnel would normally be assigned the role of Operations Section Chief?

- A. Usually the company officer of the second-due engine company
B. An officer with an extensive experience in operations
C. An instructor or inspector who does not usually respond to routine calls
D. The last-arriving truck company officer

Answer: B

78. Under what circumstances is the first-arriving officer at a scene in charge, according to the Incident Management System paradigm?

- A. When the first-arriving unit is an engine company only
B. Under all circumstances
C. Under no circumstances
D. As long as the first arriving unit is **not** an engine company

Answer: B

79. If there is no officer on the first-arriving unit, who assumes command?

- A. No one, until an officer arrives
- B. The person those present select
- C. The fire fighter with the greatest seniority
- D. Whomever the nearest responding chief officer designates over the radio

Answer: C

80. As more companies arrive at an escalating incident, what is one reason the command structure must expand?

- A. To employ the arriving officers
- B. To maintain span of control
- C. To allow unity of command
- D. To counter the formation of sectorization

Answer: B

81. The arrival report should contain:

- A. a situation evaluation.
- B. the attack mode selected.
- C. the person in command.
- D. All of the above.

Answer: D

82. What kind of heat energy is the heat of compression?

- A. Chemical
- B. Electrical
- C. Mechanical
- D. Nuclear

Answer: C

83. Which of the following is a form of electrical heat energy?

- A. Nuclear
- B. Chemical
- C. Flashover
- D. Arcing

Answer: D

84. Ignition temperature is the minimum temperature required to:

- A. cause a fuel to give off vapors in sufficient quantities to form an ignitable mixture with air.
- B. heat a fuel which will produce vapors sufficient to support combustion once ignited.
- C. heat a fuel to begin self-sustained combustion independent of the heating source.
- D. change a liquid to a gas without introducing an outside source of heat.

Answer: C

85. Which of the following gases is not produced in fires?

- A. Carbon monoxide
- C. Carbon dioxide

- B. Hydrogen cyanide
- D. Oxygen

Answer: D

86. The acronym "BLEVE" stands for Boiling Liquid:

- A. Exhausting Vapor Explosion
- C. Expanding Vapor Explosion

- B. Expanding and Venting Explosion
- D. Exhausting Vapor Expansion

Answer: C

87. It is important for fire fighters responding to reported LPG leaks to remember that propane has a vapor density of **approximately**:

A. 0.15

B. 1.5

C. 0.6

D. 2.6

Answer: B

88. LPG is _____ than air.

- A. 1.5 times lighter
- C. 1.5 times heavier

- B. 2 times lighter
- D. .5 times heavier

Answer: C

89. While preplanning a new business in your run district, you notice a Class K fire system. A Class K system be used for:

- A. metal rims.
- C. cooking oils.

- B. flammable solids.
- D. electrical boxes.

Answer: C

90. A roof that is elevated in the center and with an angular slope to the edges is called a _____ roof.

A. butterfly

B. dome

C. pitched/gabled

D. double-angle

Answer: C

91. The **primary** fire hazard in fire resistive construction is the:

- A. structure members.
- C. lack of walls.

- B. contents of the structure.
- D. non-fire resistive construction.

Answer: B

92. Spalling of concrete could lead to early collapse in Type I buildings because:

- A. loss of moisture in concrete reduces its fire rating.
- B. the added weight of broken pieces may cause overload.

- C. it could create void spaces.
- D. reinforcing steel is exposed to the heat of the fire.

Answer: D

93. What type of construction has structural members (including walls, columns, beams, floors, and roofs) that are made of noncombustible or limited-combustible materials?

- A. Type I
- B. Type III
- C. Type IV
- D. Type V

Answer: A

94. Firefighters should know that fire in Type V construction presents:

- A. shortening of steel components.
- B. breakdown of the concrete members due to the heat buildup.
- C. extensive spalling.
- D. high potential for fire extension within the building.

Answer: D

95. What type of building construction is made up of solid heavy timber or laminated wood?

- A. Type I
- B. Type II
- C. Type IV
- D. Type V

Answer: C

96. Which of the following is a hazard associated with truss and lightweight construction?

- A. If one member fails, the entire truss is likely to fail.
- B. Once a truss fails, the one next to it is likely to fail.
- C. Trusses will begin to fail after a short period of time of exposure to fire.
- D. All of the above.

Answer: D

97. One of the **most serious** building construction hazards facing firefighters today is the:

- A. increased use of noncombustible materials.
- B. increased use of lightweight and trussed support systems.
- C. heavy content of fire loading.
- D. presence of combustible furnishings and finishes.

Answer: B

98. Wire reinforced glass may provide some thermal protection as a separation. However, for the most part, conventional glass:

- A. is **not** an effective barrier to fire extension.

- B. is a good barrier to fire extension.
- C. will not crack due to the heat.
- D. will contain the fire within that area.

Answer: A

99. A(n) _____ is designed to prevent the spread of fire within a structure or between adjacent structures.

- A. stop
- B. partition
- C. inhibitor
- D. fire wall

Answer: D

100. A wall used to divide two adjacent structures and also could be used as a fire wall is a _____ wall.

- A. partition
- B. party
- C. veneer
- D. cantilever

Answer: B

101. Which of the following **is not** true of fire walls?

- A. They may be used as cantilever walls.
- B. They are used to separate two connected structures.
- C. They are used to divide large structures into smaller portions.
- D. They can be veneer walls.

Answer: D

102. A partition wall:

- A. is a load-bearing wall.
- B. presents the greatest danger for building collapse.
- C. simply divides two areas within a structure.
- D. has the highest fire resistive rating.

Answer: C

103. Construction featuring exterior walls and structural members that are noncombustible or of limited combustible materials without additional fire-resistant protection is Type _____ construction.

- A. I
- B. II
- C. III
- D. V

Answer: C

104. Knowing the effect of fire on common building materials is important since it provides firefighters with _____ during fire fighting operations at a particular occupancy.

- A. detailed actions to perform
- B. an idea of what to expect

C. policies for future direction

D. exact job tasks to perform

Answer: B

105. The structural elements of buildings of Type I construction are generally required to have a fire resistive rating of _____ hours.

A. 4 to 6

B. 3 to 4

C. 4 to 5

D. 3 to 5

Answer: B

106. A type of wood framing that has vertical channels going from floor to floor, allowing a fire to travel uninterrupted is a _____ frame construction.

A. platform

B. open

C. balloon

D. box

Answer: C

107. The fire service must be aware that synthetic materials used in buildings:

A. present a very high fire load.

B. are found in interior and exterior finish work.

C. produce large amounts of toxic gas when burned.

D. All of the above.

Answer: D

108. What does a Concrete Masonry Unit contain?

A. Void space

B. Joinery instructions

C. Steel reinforcing rods

D. Explosives

Answer: C

Directions: Match the following characteristics of building materials under fire conditions listed in Column A, with their description in Column B.

Column A

Column B

109. Combustibility

110. Thermal Conductivity

111. Decrease in strength with increased temperature

112. Rate of thermal expansion

A. How much a material will elongate when heated

B. Bending, buckling, or melting

C. Whether or not a material will burn

D. The speed at which heat flows through

a material

- E. Designed to support only the weight of itself

Answer: C,D,B,A

113. Which of the construction materials listed below ignites at fairly low temperatures and is gradually consumed by the fire, weakening and eventually collapsing the structure?

- A. Gypsum B. Wood C. Steel D. Masonry

Answer: B

114. **Directions:** Read the following statements regarding masonry as a construction material and select your answer from choices A through D.

Statement 1 The term "masonry" applies to brick, block and stone.

Statement 2 Masonry is inherently resistive to the effects of fire.

Statement 3 Rapid cooling caused by the application of hose streams during fire suppression can cause a masonry wall to spall, crack or otherwise deteriorate.

- A. Statement 1 is true; statements 2 and 3 are false.
B. Statements 1 and 2 are true; statement 3 is false.
C. Statement 1 is false; statements 2 and 3 are true.
D. All three statements are true.

Answer: D

115. **Directions:** Read the following statements regarding steel as a building construction material and select your answers from choices A through D.

Statement 1 Steel by itself is fire resistive.

Statement 2 Steel will both expand and lose strength as it is heated.

Statement 3 There are no accurate indicators that enable fire fighters to predict when a steel beam will fail.

- A. Statement 1 is true; statements 2 and 3 are false.
B. Statements 1 and 2 are true; statement 3 is false.
C. Statement 1 is false; statements 2 and 3 are true.
D. All three statements are true.

Answer: C

116. **Directions:** Read the following statements regarding reinforced concrete as a building construction material and select your answer from choices A through D.

Statement 1 Concrete is usually reinforced to increase its compressive strength.

Statement 2 Fire damage to reinforced concrete **primarily** consists of spalling.

Statement 3 Spalling of reinforced concrete can lead to building collapse.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All three statements are true.

Answer: C

117. **Directions:** Read the following statements regarding gypsum wallboard as a building construction material and select your answers from choices A through D.

Statement 1 Gypsum wallboard has limited combustibility.

Statement 2 The high water content of gypsum wallboard provides excellent heat resistance.

Statement 3 Gypsum is often used to protect building components such as steel and wood structural members from the heat of a fire.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All three statements are true.

Answer: D

118. **Directions:** Read the following statements regarding glass use in constructed buildings, and select your answers from choices A through D.

Statement 1 Glass is increasingly used for structural support in modern buildings.

Statement 2 Wire reinforced glass is frequently used in fire doors and windows.

Statement 3 Conventional glass is **not** an effective barrier to fire extension.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statement 2 is true; statements 1 and 3 are false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All three statements are true.

Answer: C

119. Generally, the structural elements of buildings of Type I construction are required

to have a fire resistive rating of _____ hours.

- A. 4 to 6 B. 3 to 4 C. 1 to 3 D. 3 to 5

Answer: B

120. Three of the four characteristics of building materials under fire include:

1. thermal conductivity,
2. decrease in strength with increased temperature,
3. rate of thermal expansion.

The fourth characteristic is:

- A. polymerizability. B. portability. C. combustibility. D. stability.

Answer: C

121. An all metal building is classified as a:

- A. Type I. B. Type II. C. Type III. D. Type V.

Answer: B

122. Which of the following building conditions is the most hazardous to firefighters?

- A. Buildings under demolition
B. Buildings being constructed
C. Buildings being renovated
D. All of the above

Answer: D

123. Concrete has excellent _____ strength when it cures.

- A. shear B. compressive C. torsional D. tensile

Answer: B

124. Which of the following **is not** a polar solvent?

- A. Alcohol B. Acetone C. Kerosene D. Ketone

Answer: C

125. Regarding the application of firefighting foam, the major difference between hydrocarbon and polar solvent fuels is that:

- A. hydrocarbons are miscible. B. polar solvents float on water.
C. polar solvents are water soluble. D. Both A and C are correct.

Answer: C

126. Which of the following **is not** an example of a light hazard environment?

- A. Self-storage
- B. Classrooms
- C. Assembly halls
- D. Hotel guest rooms

Answer: A

127. Light hazard environments **usually** contain a limited amount of combustibles classified as:

- A. Class D.
- B. Class A.
- C. Class M.
- D. Class B.

Answer: B

128. What two factors contribute to determining which risk class to assign a certain building area?

- A. Direction and density of pedestrian traffic flow
- B. Elevation and configuration of the given area
- C. Volume and pressure capacity of sprinklers
- D. Amount and type of combustibles present

Answer: D

129. With regard to portable fire extinguishers, which of the following situations would a firefighter bring to the occupant/owner's attention?

- A. The extinguisher has the proper classification and rating for its location.
- B. The pressure gauge indicates that the extinguisher isn't properly charged.
- C. The fire extinguisher is hung on the wall and is easily visible and accessible.
- D. The tag indicates that the extinguisher has been serviced to local laws.

Answer: B

130. Which of the following hand tools would probably **not** be used for vehicle accident extrication?

- A. Kelly tool
- B. Pry bar
- C. Clemens hook
- D. Halligan tool

Answer: C

131. Which of the following saw types would **most likely** be used during vehicle extrication?

- A. Keyhole saw
- B. Reciprocating saw
- C. Chain saw
- D. Coping saw

Answer: B

132. In what condition should the fuel tanks on power tools be left when **not** in use?

- A. Full
- B. Approximately half full

C. Almost empty

D. Absolutely empty and dry

Answer: A

133. What guide should be used when cleaning power tools used in ventilation?

- A. The applicable NFPA standard
- B. The ANSI guides on tool maintenance
- C. The manufacturer's instructions
- D. Common sense and a thorough job

Answer: C

134. Harnesses are classified into three categories. Which of the following classes **is not** acceptable as a life safety harness?

- A. Class III
- B. Class III H
- C. Class I
- D. Class II

Answer: B

135. The initial report given by first arriving companies is called a(n):

- A. progress report.
- B. accountability report.
- C. size-up/conditions report.
- D. personnel arrival report.

Answer: C

136. The report given to the incident commander from an interior crew which tells the incident commander that the fire is controlled would be a(n):

- A. size-up/conditions report.
- B. situation status/progress report.
- C. all clear notification.
- D. staging report.

Answer: B

137. The only effective measure for protecting firefighters from an imminent building collapse is to:

- A. provide them with OSHA-approved personal protective equipment.
- B. remove personnel from the building.
- C. position them at least two rooms from the expected area of collapse.
- D. have them work in small groups in large undivided spaces.

Answer: B

138. If firefighters inside a building believe that the collapse of a building is imminent, what is the first action that should be taken?

- A. They should wait until the chief gives the order to pull out.
- B. They should have the safety officer inspect the building.
- C. They should have all personnel within the building evacuated.
- D. They should try to extinguish the fire before leaving.

Answer: C

139. Which of the following factors must be taken into consideration when fighting a structure fire?

- A. Building construction
- B. Length of time the fire has been burning
- C. Occupancy type
- D. All of the above.

Answer: D

140. With respect to tactical considerations, the acronym RECEO stands for:

- A. Rapid, Exit, Company, Emergency, and Orders.
- B. Rescue, Exposures, Confinement, Extinguishment, and Overhaul.
- C. Real, Emergencies, Can, Extend, and Operations.
- D. Rescue, Extinguishment, Confinement, Exposures, and Overhaul.

Answer: B

141. You are a firefighter in a forcible entry crew operating at a structure fire in a commercial building. Your crew has pulled the keyway and unlocked the dead bolt on the steel door through which you are trying to gain entry. All that remains to impede you is the cylindrical lock in the door handle. The door is mounted in a wood frame. Which of the following would be the **best** and **fastest** entry method?

- A. Use a battering ram
- B. Cut the hinges with a torch
- C. Force the door with a Halligan tool and a flathead axe
- D. Use a bam-bam tool

Answer: C

142. **Directions:** Read the following statements, then select your answer from alternatives

A-D below.

To ensure that there is little danger of injury, a fire ax should be carried:

Statement 1: on the shoulder with the edge pointed toward the ground.

Statement 2: with the ax blade away from the body, or protected.

Statement 3: with pick-head axes, the pick should be covered with a hand.

- A. All three statements are true.
- B. Statements 1 and 2 are false; statement 3 is true.
- C. Statement 1 is true; statements 2 and 3 are false.
- D. Statement 1 is false; statements 2 and 3 are true.

Answer: D

143. You are a firefighter in a crew instructed by the company officer to gain access to the rear of a commercial building that is on fire. You decide to take a K tool and "the irons." Which of the following forcible entry tools does the term "the irons" refer to?

- A. Crow bar and a sledgehammer
- B. Pryaxe and a maul
- C. Pickhead axe and an adz tool
- D. Halligan tool and a flat-head axe

Answer: D

144. Which of the following **is not** one of the four basic types of powered hydraulic tools used in rescue incidents?

- A. Spreaders
- B. Shears
- C. Extension rams
- D. Struts

Answer: D

145. Which of the following is designed primarily for straight pushing operations?

- A. Spreaders
- B. Shears
- C. Extension rams
- D. Struts

Answer: C

146. For a circular saw, a _____ blade is superior to a standard blade because it is less prone to dulling.

- A. large-toothed
- B. fine-toothed
- C. carbide-tipped
- D. All of the above
- E.
- F.

Answer: C

147. The basic types of powered hydraulic tools used in rescue incidents; spreaders, shears, combination spreader/shears, and:

- A. extension rams.
- B. air bags.
- C. chocks.
- D. cribbing.

Answer: A

148. When making a large opening in a wall, a _____ shape should be cut to help maintain structural integrity.

- A. square
- B. circle
- C. triangular and/or diamond
- D. rectangle

Answer: C

149. Powered hydraulic tools open and close by use of:

- A. air.
- B. fluid.
- C. steam.
- D. mechanical advantage.

Answer: B

150. **Directions:** Read the following statements regarding maintenance of power tools and equipment, and select your answer from choices A through D.

Statement 1 Power tools and equipment should be cleaned and maintained according to manufacturer and departmental guidelines.

Statement 2 Proper records must be kept to track maintenance, repairs and any warranty work that is performed.

Statement 3 "Ready state" means the tool or piece of equipment is in proper working order, in its proper place, and ready for immediate use.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All three statements are true.

Answer: D

151. Which of the following circular saw blades **should not** be stored near gasoline because the vapors will cause the blade to decompose?

- A. Masonry-cutting blades
- B. Carbide-tipped blades
- C. Metal-cutting blades
- D. Diamond tipped blades

Answer: A

152. As firefighters approach a structure that is going to be searched, they should consider the time of day and:

- A. familiarize themselves with the type of building construction.
- B. anticipate occupancy (residential or commercial).
- C. location of doors and windows for emergency exit.
- D. All of the above.

Answer: D

153. Coordination of a search for victims in a structure fire is based on a system of priorities. Of the following, which is the correct listing of priorities from **first to last**?

- A. The area immediately around the fire, and the rest of the fire floor, then the area directly above the fire and the rest of the floor, then all higher level floors, from top floor down, to the areas below the fire floor
- B. All higher level floors above the fire floor, from top floor down, then the area immediately around the fire and the rest of the fire floor, then areas below the fire floor
- C. Area below the fire floor first, because that is where victims will retreat to, then the

area and floor directly above the fire floor, then the fire area and the rest of the floor, then all remaining upper floors from top down

- D. The area and floor immediately above the fire floor, then the fire area and rest of the fire floor, then all higher level floors, then areas below the fire floor

Answer: A

154. Which of the following statements is incorrect?

- A. The secondary search is the most dangerous.
- B. Searching a building is completed in two different operations—primary and secondary search.
- C. During primary search, the team is often ahead of attack lines and may be above the fire.
- D. The primary search takes place in a rapid but thorough manner in areas most likely to have victims.

Answer: A

155. When using the Blanket Drag, patients should always be dragged:

- A. feet first.
- B. head first.
- C. sideways.
- D. Either B or C is correct

Answer: B

156. One thing common to all types of trusses is that if one member fails:

- A. only that member will fail.
- B. the truss next to it will keep it from failing completely.
- C. the entire truss is likely to fail.
- D. it is unlikely to have a total collapse.

Answer: C

157. Natural roof ventilation openings consist of:

- A. cutting a 4 ft. X 4 ft. hole.
- B. trench cutting and smoke ejectors.
- C. scuttle hatches, skylights, stairwell openings and bulkheads.
- D. fire streams from aerial ladders directed across a ventilation opening.

Answer: C

158. If a ventilation opening is made directly above a fire, it will tend to _____ the fire.

- A. spread
- B. mushroom
- C. localize
- D. extinguish

Answer: C

159. Which of the following is considered a natural or normal roof opening?

- A. Parapet B. Skylight C. Soffit D. Fire stop

Answer: B

160. Whenever possible, forced ventilation should be directed:

- A. on the upward side.
- B. on the windward side.
- C. in the same direction as the wind.
- D. in the same direction as master stream operations.

Answer: C

161. Before cutting an opening in a roof, firefighters should:

- A. inspect their cutting tools for sharpness.
- B. check for natural or existing openings.
- C. open all top windows on the windward side of the building.
- D. open all bottom windows on the leeward side of the building.

Answer: B

162. To localize a fire and create a chimney effect, the primary ventilation hole should be placed:

- A. at the far end of the roof on the leeward side.
- B. directly over the fire.
- C. at the far end of the roof on the windward side.
- D. in an area where supplemental forced or mechanical ventilation can easily be added later, if needed.

Answer: B

163. Which of the following conditions **is not** a warning sign of unsafe roof conditions?

- A. A spongy feel as you walk on the roof
- B. Melting asphalt roof covering
- C. Multiple layers of roofing materials built upon itself, adding weight to the structural members
- D. Fire coming from the roof

Answer: C

164. Positive pressure ventilation is effective:

- A. when opening of doors and windows in the structure can be controlled.
- B. only if you can create a lower pressure zone in the structure.
- C. if the exhaust opening is smaller than the entry point, creating a Venturi effect.
- D. if an entire floor is ventilated at a time, starting at the highest floor and working down.

Answer: A

165. As a last resort, when ventilating a basement fire, _____ may be used to allow smoke and heat to escape.

- A. the HVAC system
- B. a hole cut in the floor above the fire
- C. a fire stream to break a window
- D. positive pressure force

Answer: B

166. The usual cause of collapse of open-web steel joist is the:

- A. amount of heat generated by the fire in a structure.
- B. poor construction methods.
- C. impact load of firefighters jumping onto roof.
- D. unknown (still being researched).

Answer: A

167. What is the consequence of opening windows on the windward side of a building before opening leeward side windows?

- A. There is no consequence; this is the recommended procedure.
- B. The fire may be forced into uninvolved areas of the structure.
- C. There is no consequence; doing so eliminates the need to perform vertical ventilation later.
- D. The need to effect ventilation on the leeward side through excessive window glass breakage.

Answer: B

168. Successful fire attack on structures should be:

- A. coordinated with other activities, such as ventilation and rescue.
- B. only attempted by certified firefighters.
- C. coordinated with overhaul operations to protect contents on the fire floor.
- D. All of the above.

Answer: A

169. Which of the following statements regarding a trench cut is **incorrect**?

- A. The trench cut is an offensive action.
- B. The trench cut is from 2-4 feet wide.
- C. It is not opened until the entire cut is complete.
- D. It is made in coordination with interior crews.

Answer: A

170. A connecting plate used in truss construction that can be made of flat steel stock, light gauge metal, or plywood is the definition of a:

- A. joint. B. gusset plate. C. column. D. joist.

Answer: B

171. **Directions:** Read the following statements regarding gasoline power saws and select your answer from choices A through D.

Statement 1 A saw should always be started to ensure it runs properly before going to the roof for vertical ventilation.

Statement 2 The saw should be run briefly at full throttle to verify proper operation during the pre-use check.

Statement 3 The saw should always be run at full throttle when in actual ventilation use; before the blade touches the roof decking, while cutting, and during removal of the blade from the cut.

- A. Statement 1 is true; statements 2 and 3 are false.
B. Statements 1 and 2 are true; statement 3 is false.
C. Statement 1 is false; statements 2 and 3 are true.
D. All three statements are true.

Answer: D

172. The usual pressure on a water distribution system during periods of ordinary consumption demand is known as _____ pressure.

- A. normal operating B. residual
C. atmospheric D. static

Answer: A

173. Water wells and springs are considered what type of water supply?

- A. Surface water supply B. Ground water supply
C. Lake supply D. River supply

Answer: B

174. Direct pumping water systems are those in which water:

- A. moves directly into the distribution system by gravity flow.
B. is supplied directly into the distribution system from elevated storage tanks.
C. is pumped directly into the distribution system with no elevated storage.
D. is pumped directly through the distribution system back into the main water supply.

Answer: C

175. In a water supply system, the size of the water mains from the largest to the smallest are:

- A. primary, distributor, secondary.
- C. secondary, primary, distributor.

- B. distributor, secondary, primary.
- D. primary, secondary, distributor.

Answer: D

176. Which of the following violates the principle of a loop feed hydrant?

- A. Primary feeders
- C. Interconnecting distributors

- B. Secondary feeders
- D. Dead-end water mains

Answer: D

177. Which of the following **is not** one of the component parts of a dry-barrel fire hydrant?

- A. Operating stem
- C. Post-indicator gate

- B. Stem nut
- D. Drain hole

Answer: C

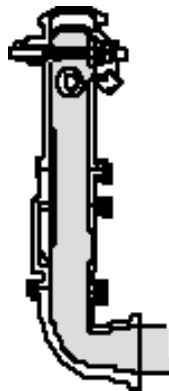
178. Which of the following **is not** a component of a grid system?

- A. Primary feeders
- C. Distributors

- B. Secondary feeders
- D. Risers

Answer: D

179. The following illustration depicts a _____ hydrant.



A. dry-barrel

B. wet-barrel

C. drafting

D. dry

Answer: B

180. Which of the following **is not** one of the three common systems for water system distribution?

A. Artesian

B. Direct pumping

C. Gravity

D. Combination

Answer: A

181. The four fundamental components of a modern water system are:

- A. source, mains, feeders, and risers.
- B. primary, secondary, standpipes, and subscriber connections.
- C. pipes, valves, hydrants, and pumps.
- D. source, means of moving, treatment plant, and distribution system.

Answer: D

182. A fire hydrant that receives water from only one direction is called a _____ hydrant.

- A. one-way
- B. steamer
- C. circulating-feed
- D. dead-end

Answer: D

183. The smaller internal grid arrangement of a water distribution system that feeds hydrants, as well as the domestic and commercial requirements, **best** describes:

- A. primary feeders.
- B. secondary feeders.
- C. distributors.
- D. grid network.

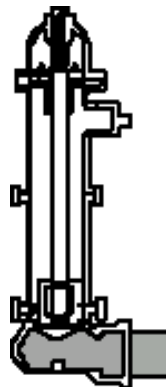
Answer: C

184. Large pipes that carry large quantities of water to various points along the water supply system for distribution to smaller mains **best** defines:

- A. primary feeders.
- B. secondary feeders.
- C. distributors.
- D. grid network.

Answer: A

185. The following illustration depicts a _____ hydrant.



- A. dry-barrel
- B. wet-barrel
- C. drafting
- D. dry

Answer: A

186. A network of intermediate-sized pipe that reinforces the overall grid system by forming loops that interlock primary feeders **best** defines:

- A. primary loop.
- C. distributors.

- B. secondary feeders.
- D. grid network.

Answer: B

187. When checking hydrants to ensure their effectiveness, firefighters should look for all of the following conditions **except**:

- A. obstructions erected near the hydrant that interfere with its operation.
- B. outlets facing the proper direction with sufficient clearance to the ground.
- C. components not damaged and all parts operating properly.
- D. the Post Indicator Valve is fully closed.

Answer: D

188. Failure to open a dry-barrel hydrant fully will result in a reduced amount of available water and will contribute to:

- A. sedimentation.
- B. susceptibility to freezing.
- C. difficulty in draining the main.
- D. ground erosion.

Answer: D

189. According to the NFPA, a hydrant with an orange bonnet or caps may be expected to flow _____ gallons per minute.

- A. less than 500
- B. 500 to 999
- C. 1000 to 1499
- D. greater than 1500

Answer: B

190. According to the NFPA, a hydrant with a flow rate of 1000 to 1499 gpm may have a(n) _____-colored bonnet or cap.

- A. light blue
- B. green
- C. orange
- D. red

Answer: B

191. **Directions:** Read the following statements regarding fire hydrants and select your answer from Choices A through D.

Statement 1 The valve that controls the flow of water in a dry-barrel hydrant is located below ground and the frost line.

Statement 2 The drain opening found at the bottom of the barrel is an exclusive feature of dry-barrel hydrants.

Statement 3 A dry-barrel hydrant should always be either fully open or fully closed.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All three statements are true.

Answer: D

192. **Directions:** Read the following statements regarding fire hydrants and select your answer from choices A through D.

- Statement 1 When inspecting fire hydrants, firefighters should first check visibility and accessibility of the hydrants.
- Statement 2 Hydrants should be positioned so that the connections, especially the large steamer connection are facing the street.
- Statement 3 Trash or other foreign objects placed inside the empty barrels of dry-barrel hydrants can obstruct water flow and/or damage a fire department pumper if they are drawn into the pump.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All three statements are true.

Answer: D

193. **Directions:** Read the following statements regarding fire hydrants and select your answer from choices A through D.

- Statement 1 Mechanical damage to fire hydrants can be caused by many things including nature, vandals, accidents, and improper actions by members of the fire department.
- Statement 2 Rust and corrosion of hydrants should be noted for referral to the water department during hydrant inspection by firefighters.
- Statement 3 Sedimentation and encrustation can restrict or completely obstruct flow from hydrants.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All three statements are true.

Answer: D

194. Which of the following is important to remember in placing a foam line in service using an in-line proportioner?

- A. Check the eductor and nozzle to make sure they are hydraulically compatible (rated for the same flow).
- B. Check to see that the foam concentrate listed on the foam container matches the eductor percentage rating.
- C. Select the proper foam concentrate for the burning fuel involved.
- D. Attach the eductor to a hose capable of efficiently flowing the rated capacity of the eductor and the nozzle.

Answer: C

195. Which is the **most common** type of foam proportioner used in the fire service?

- A. Balanced pressure proportioner
- B. In-line eductor
- C. Around-the-pump proportioner
- D. Automatic eductor

Answer: B

196. A _____ nozzle is used with a foam solution to produce a low-expansion, short-lasting foam.

- A. fog
- B. mechanical blower
- C. solid-bore
- D. water-aspirating foam

Answer: A

197. The elements needed to produce quality firefighting foam include:

- A. aeration, air, water, and concentrate.
- B. air, concentrate, eductor, and CO₂.
- C. proportioner, CO₂, and eductor.
- D. aspiration, subsurface injection, and air.

Answer: A

198. Class A foams are essentially wetting agents that _____ of water.

- A. increase the viscosity
- B. increase the resistance
- C. reduce the surface tension
- D. create a higher vaporization point

Answer: C

199. Aqueous Film Forming Foam can be utilized on hydrocarbon fires at _____ percent proportions.

- A. two
- B. three to six
- C. ten
- D. nine

Answer: B

200. Of the following characteristics, which **is not** an advantage of Class A foams?

- A. They may be used with regular water stream equipment.

- B. They can be premixed with water in the booster tank.
- C. They have outstanding insulating qualities.
- D. They can be used on Class A and B fires.

Answer: D

201. To produce the proper rate of foam on flammable liquids fire, a(n) _____ is necessary.

- A. high-volume pump
- B. proportioner
- C. fog nozzle
- D. aspirating tip

Answer: B

202. For application of aqueous film-forming foam, eductors or proportioners operate on a(n) _____ principle.

- A. static pressure
- B. venturi
- C. induction
- D. positive pressure

Answer: B

203. Foams in use currently are of the mechanical type and must be _____ and _____ before they can be used.

- A. proportioned, blended
- B. stirred, aerated
- C. mixed, proportioned
- D. proportioned, aerated

Answer: D

204. Production of an adequate amount of bubbles to form an effective foam blanket is the definition of:

- A. proportioning
- B. aeration
- C. mixing
- D. blending

Answer: B

205. To ensure maximum effectiveness, use foam concentrates _____ the specific percentage for which they are intended to be proportioned.

- A. within 10% greater than
- B. only at
- C. plus or minus 5% of
- D. within plus or minus 2% of

Answer: B

206. Firefighting foam solution is _____ percent water.

- A. 95 to 98.6
- B. 80 to 85.5
- C. 94 to 99.9
- D. 80 to 90.7

Answer: C

207. The **most effective** type of foam for use on polar solvents is:

- A. alcohol-resistant.
- B. Class A foam.

C. low/high expansion foam.

D. FFFP.

Answer: A

208. Application rate in relationship to a flammable liquids fire is:

A. amount of water needed to extinguish a fire.

B. amount of foam or foam solution needed to extinguish a fire.

C. ratio of air to water needed to extinguish a fire.

D. ratio of foam to water to generate an effective foam blanket.

Answer: B

209. Solid bore or solid tip nozzles can be effectively used for foam application with:

A. Aqueous Film Forming Foam (AFFF).

B. Protein foam.

C. Compressed Air Foam Systems (CAFS).

D. Film-Forming Fluoroprotein (FFFP).

Answer: C

210. Which of the following **is not** one of the ways foam is applied using a nozzle?

A. Raindown or snowflake technique

B. Bank-in or roll-on technique

C. Sub-surface injection technique

D. Bank-down or off the wall technique

Answer: C

211. Friction loss is:

A. the amount or volume of water that a nozzle will provide.

B. the force of nature that makes the nozzle move in the opposite direction of the water flow.

C. the forward pressure of water as it leaves an opening.

D. that part of total pressure that is lost while water moves through a hose line.

Answer: D

212. **Directions:** Read the following statements regarding foam application and select your answer from choices A through D.

Statement 1 AFFF can be effectively applied through a standard fire department fog nozzle.

Statement 2 Air aspirating foam nozzles or foam nozzle adaptors on standard fog nozzles produce effective, high quality foam.

Statement 3 Special aerating nozzles are recommended for use with protein and fluoroprotein foams.

A. Statement 1 is true, statements 2 and 3 are false.

B. Statements 1 and 2 are true, statement 3 is false.

- C. Statements 1 and 2 are false; statement 3 is true.
- D. All three statements are true.

Answer: D

213. The four basic methods by which foam may be proportioned are: Injection, Premixing, Induction, and:

- A. Venturi.
- B. Batch-mixing.
- C. Patch-mixing.
- D. Aeration.

Answer: B

214. **Directions:** Read the following statements regarding class B foam application and select your answers from choices A through D.

Statement 1 An important variable in effective rate of application is the type of foam concentrate used.

Statement 2 The rate of foam application must be high enough to cover the surface and maintain a blanket on top of the liquid.

Statement 3 Unignited spills require the same foam application rates as ignited spills.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statements 1 and 2 are false; statement 3 is true.
- D. All three statements are true.

Answer: B

215. Foam, rather than water, is chosen to control a hydrocarbon fire because:

- A. it cools more effectively.
- B. it is soluble, which allows it to dilute the fuel concentration.
- C. its specific gravity is greater than that of the burning fuel.
- D. its specific gravity is less than that of the burning fuel.

Answer: D

Directions: Match the following terms in Column A with the correct definition in Column B.

Column A

Column B

- 216. Foam concentrate
- 217. Foam proportioner
- 218. Foam solution

- A. Introduces foam into the water
- B. Before air is introduced into product
- C. Raw foam
- D. Completed product

Answer: C,A,B

219. All of the following are methods by which foam may be proportioned **except**:

- A. induction.
- B. batch-mixing.
- C. ingestion.
- D. premixing.

Answer: C

220. Which of the following statements is **correct** regarding foam application.

- A. You should always apply foam using the roll-on method.
- B. High expansion foam is used at 20:1 ration.
- C. Fog nozzles can be used with AFFF on polar solvent fires.
- D. Fog nozzles are best used with Class A foams.

Answer: D

221. The part of the total pressure that is lost when water is forced through pipe, fittings, fire hose, and adapters is called:

- A. residual pressure.
- B. flow pressure.
- C. friction loss.
- D. static pressure.

Answer: C

222. In high-rise firefighting situations, typically the fire attack will be initiated from:

- A. the fire floor.
- B. one floor below the fire.
- C. one floor above the fire.
- D. two floors below the fire.

Answer: B

223. If there is adequate ventilation, steam from a water fog will _____ the toxic gases present.

- A. compress
- B. absorb
- C. displace
- D. contain

Answer: C

224. Solid streams are preferred whenever:

- A. a large volume of smoke is present.
- B. reach and penetration are needed.
- C. firefighters need a protective curtain.
- D. forced ventilation is necessary.

Answer: B

225. Hose from a high-rise pack should be connected to the standpipe connection on the floor _____ the fire floor with extra hose flaked _____ the stairs of

the fire floor.

- A. below; up B. above; up C. below; down D. above; down

Answer: A

226. All of the following are **true** regarding the use of a fog stream on an interior fire attack **except**:

- A. discharge pattern can be adjusted to suit the situation.
B. is not affected by wind.
C. can aid in ventilation.
D. provide maximum protection to firefighters.

Answer: B

227. When filling a hoseline with water for testing, a pump pressure of approximately _____ psi is maintained.

- A. 25-30 B. 45-50 C. 80-90 D. 250

Answer: B

228. When conducting a hose service test, after charging the hoseline with water:

- A. ensure all air has been discharged from the line.
B. have an adequate number of firefighters controlling each line.
C. tighten each coupling as tightly as possible.
D. walk each line to determine whether there are any air leaks.

Answer: A

229. After the proper test pressure has been reached during an annual service test on fire hose, pressure should be maintained for a period of:

- A. thirty seconds. B. one to three minutes.
C. three to five minutes. D. twenty minutes.

Answer: C

23 T While inspecting a length of hose, prior to conducting a service test, you find a
0. F damaged coupling. You may proceed to test the hose at reduced pressure.

Answer: F

231. The **maximum** length of time that fire hose should be used without a service test is:

- A. six months. B. one year. C. three years. D. five years.

Answer: B

232. When laying out fire hose to be service tested, test lengths should be:

- A. no more than 150 feet.
- C. no more than 500 feet.

- B. no more than 300 feet.
- D. no more than 200 feet.

Answer: B

233. A record should be kept on each section of fire hose; information consisting of _____ should be recorded.

- A. the gallons per minute flowed during the test
- B. the annual number of fire responses at which it was used
- C. the date and results of the annual test
- D. number of threads per inch on each coupling

Answer: C

234. To determine whether there is any slippage of couplings when testing hose:

- A. measure and mark the exact length of each coupling.
- B. mark the hose by each coupling using a pencil/marker.
- C. check to see whether couplings remain tight.
- D. use a special torque wrench set to 60 psi.

Answer: B

235. When testing fire hose, fill each hose with water and, during the filling process, make sure that each nozzle:

- A. receives the same gpm.
- B. is closed and strapped in place.
- C. is held by a firefighter when discharging water.
- D. is open until all air is discharged.

Answer: D

236. The type of hose testing conducted by the fire department is called:

- A. acceptance.
- B. pressure.
- C. service.
- D. fire ground.

Answer: C

237. Which of the following is the number of NFPA standard which deals with Inspection, Care and Use of Fire Hose, Couplings and Nozzles and Testing of Fire Hose:

- A. 1962
- B. 1987
- C. 1972
- D. 1971

Answer: A

238. Risk management is:

- A. a collection of documents that includes all federally promulgated regulations for all

federal agencies.

- B. the process of minimizing the chance, degree, or probability of damage, loss, or injury.
- C. the result of a series of events and conditions that lead to an unsafe situation resulting in injury and/or property damage.
- D. a formal gathering of incident responders to help defuse and address stress from a given incident.

Answer: B

239. Which of the following items **would not** be found in the risk/benefit philosophy of a risk management plan?

- A. Where no life can be saved, no risk shall be taken by firefighters.
- B. Situations endangering valued property shall cause firefighters to take a calculated and weighted risk.
- C. Where no life or valued property can be saved, risk may be taken by firefighters.
- D. Significant risk to the life of a firefighter shall be limited to those situations where the firefighter can potentially save endangered lives.

Answer: C

240. All of the following are times or events when the Incident Commander may call for PAR **except** when:

- A. initial size-up is completed.
- B. incident is declared under control.
- C. there is a change in strategy.
- D. there is an emergency evacuation.

Answer: A

241. The two-in/two-out regulation came from the federal agency called the:

- A. Environmental Protection Association.
- B. Department of Transportation.
- C. Occupational Safety and Health Administration.
- D. United States Fire Administration.

Answer: C

242. A Rapid Intervention Crew/Team is defined as:

- A. any combination of single resources assembled for an assignment.
- B. the designation for a set number of resources of the same type and kind.
- C. a company designated to search for and rescue trapped firefighters.
- D. a designated group that is used for rapid knock down of wildland fires.

Answer: C

243. A report that is made to the Incident Commander signifying that companies working in the hazard zone are all safe and accounted is called:

- A. the all clear signal.
- B. PAR.

C. loss is stopped.

D. status report.

Answer: B

244. When asked to maintain team integrity, you should always:

- A. be in physical contact with your partner.
- B. be in verbal contact with your partner.
- C. be in visual contact with your partner.
- D. All of the above

Answer: D

245. Hidden fire can be checked by using a(n):

- A. detector for different levels of carbon monoxide and oxygen.
- B. Halligan tool to remove the whole wall.
- C. plaster tool from the opposite side of the wall.
- D. electronic/infrared heat sensor.

Answer: D

246. Before beginning overhaul, it is vital to make sure the building is:

- A. completely saturated with water.
- B. structurally safe.
- C. free of toxic gases and smoke.
- D. thoroughly dewatered.

Answer: B

247. The **least desirable** method of detecting fire in concealed spaces is by:

- A. looking for discoloration, peeling, or cracked materials.
- B. feeling the area in question.
- C. listening for popping, cracking, or hissing sounds.
- D. smelling for smoke.

Answer: D

248. Before starting a search for hidden fires, the building's condition must be determined. The amount of water used to control a fire indicates:

- A. that there may be additional weight on walls and floors.
- B. the likelihood that the fire was a result of arson.
- C. how many firefighters will be needed for overhaul.
- D. how many salvage covers will be needed.

Answer: A

249. Which of the following **is not** a major consideration when addressing the possibility of a building collapse during overhaul?

- A. Ankle-deep water on floors and burned-out trusses

- B. Steel beams that have been exposed to extensive heat and fire
- C. Smoldering debris
- D. Spongy floors and roofs

Answer: C

250. When determining the structural condition of a building following a fire, it is important to consider the:

- A. amount of smoke and steam being emitted from the building.
- B. the type of construction vs. the tools the firefighter has available.
- C. intensity of the fire and amount of water used to control the fire.
- D. age and overall value of the building.

Answer: C

251. During overhaul operations:

- A. the engine company should be returned to the station.
- B. all apparatus should remain at the scene.
- C. all truck companies should be returned to the station.
- D. one or more charged attack lines should stay with the overhaul crew.

Answer: D

252. During overhaul, firefighters should wear:

- A. boots and gloves; coats and helmets are unnecessary.
- B. lightweight clothing, due to residual heat.
- C. full protective gear, including SCBA.
- D. full protective gear; SCBA is not needed.

Answer: C

253. Once a fire investigator has completed the work required in gathering evidence and information from a fire scene, a thorough _____ can be done.

- A. ventilation
- B. demobilization
- C. inventory
- D. overhaul

Answer: D

254. **Directions:** Read the following statements regarding inverters and select your answer from choices A through D.

Statement 1 Inverters are usually used to power one or two lights mounted directly on the apparatus.

Statement 2 Most power inverters produce enough power to run high intensity lighting equipment, large power tools and ventilation fans.

Statement 3 Connecting devices that draw too much current to an inverter can

seriously damage it.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statement 1 is false; statements 2 and 3 are true.
- C. Statements 1 and 3 are true; statement 2 is false.
- D. All three statements are true.

Answer: C

255. Gasoline powered generators should be tested and run for _____ to reduce any deposit build-up that could foul the spark plug(s).

- A. 15 to 30 minutes B. at least 1 hour C. 5 minutes D. 2 to 3 minutes

Answer: A

256. **Directions:** Read the following statements regarding the conducting of a weekly/monthly generator test, and select your answer from choices A through D.

Statement 1 There is no need to check generator fuel and oil levels before conducting the test because they were topped off after the last test or use.

Statement 2 Start the generator, connect a load consisting of lights or a fan and listen as the engine revs up to proper speed. Check voltage, and amperage output.

Statement 3 Upon completion of test, allow the engine to idle for approximately 2 minutes before shutting off.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statements 2 and 3 are true; statement 1 is false.
- D. All three statements are true.

Answer: C

257. Refueling a hot gasoline-powered saw is **best** accomplished by:

- A. allowing the saw to cool before refueling.
- B. using a funnel to prevent vapors from escaping.
- C. installing flame arrestors at the fuel opening.
- D. wearing full protective clothing.

Answer: A

258. Electrical _____ are used when multiple connections are needed.

- A. cords
- B. junction boxes
- C. inverters
- D. power take offs (PTOs)

Answer: B

259. Lighting equipment can be divided into two categories:

- A. inverters and generators.
- B. emergency and nonemergency.
- C. auxiliary and installed.
- D. fixed and portable.

Answer: D

260. **Directions:** Read the following statements regarding inverters and select your answer from choices A through D.

Statement 1 If a fire building's electrical service has been interrupted, power for lighting or tools can be supplied by either a generator or inverter.

Statement 2 Inverters convert 12-volt DC from a vehicle's electrical system to 110-volt AC power.

Statement 3 An inverter can provide an unlimited amount of AC current.

- A. Statement 1 is true; statements 2 and 3 are false.
- B. Statements 1 and 2 are true; statement 3 is false.
- C. Statement 1 is false; statements 2 and 3 are true.
- D. All three statements are true.

Answer: B

261. The last thing you should do once maintenance is complete on a gas-powered generator which has been placed back on the apparatus is to:

- A. document the work completed in a log book.
- B. clean the work area.
- C. notify your officer that the work is done.
- D. contact the manufacturer if you found a problem.

Answer: A