1. Which statement about downed electrical wires is correct?
   A) Turnout boots and thick rubber gloves will afford you sufficient protection.
   B) A downed power line may be safely pinned down under the tire of the apparatus.
   C) Fire fighters should operate under the assumption that all downed utility lines are energized.
   D) Fire fighters should use tools with wood or fiberglass handles to manipulate downed lines.

2. What is the relationship between habits developed in training and performance on the fire ground?
   A) In the stress of emergency operations, habits are overridden by instincts
   B) Habits formed in training necessarily become abbreviated and rushed on the fire ground
   C) Habits developed in training will continue on the fire ground
   D) Fire-ground performance is not significantly altered through habituation

3. A fire department is required to have a _________ to track personnel and assignments at an emergency scene.
   A) personnel accountability system
   B) situation status report
   C) unit log
   D) passport system

4. Which of the following is one of the three methods by which team members working in a hazardous area should maintain contact with one another at all times?
   A) Radio
   B) Rope
   C) O-A-T-H
   D) Visual

5. The sole responsibility of a(n) _________ is to provide emergency assistance to crews working inside the hazardous area.
   A) interior attack team
   B) buddy system
   C) rescue group
   D) rapid intervention crew
6. Fire fighters should spend a minimum of _____ minutes per day in physical fitness training.
   A) 15
   B) 30
   C) 45
   D) 60

7. The majority of fire fighter deaths are caused by __________.
   A) heart attack or stroke
   B) trauma
   C) burns
   D) asphyxiation

8. Which organization developed the Everybody Goes Home program?
   A) National Fire Protection Association (NFPA)
   B) Occupational Safety and Health Administration (OSHA)
   C) International Association of Firefighters (IAFF)
   D) National Fallen Firefighters Foundation (NFFF)

9. What is the term for acting without a superior's orders or outside of department SOPs?
   A) Independent action
   B) Initiative
   C) Decentralized authority
   D) Freelancing

10. In the United States, the number of fire fighter deaths that occurs during emergency operations is __________ the number that occur during nonemergency activities.
    A) nearly five times
    B) about twice
    C) about half
    D) about equal to

11. Which NFPA standard deals with personal alert safety systems?
    A) 1440
    B) 1460
    C) 1785
    D) 1982
12. Which gas is most commonly produced by residential or commercial fires?  
A) Anhydrous ammonia  
B) Nitrous oxide  
C) Hydrogen sulfide  
D) Hydrogen cyanide

13. Which piece of equipment must be worn with structural firefighting PPE and SCBA?  
A) PASS device  
B) Portable radio  
C) Bail-out rope  
D) Buddy-breather

14. What is the first step in cleaning SCBA?  
A) Rinse the entire unit with clean water from a hose  
B) Use compressed air to blow loose contamination off the unit  
C) Remove the cylinder from the harness  
D) Cover the regulator in a plastic bag

15. NFPA standards require an SCBA low-air alarm to sound when cylinder pressure drops to _____ percent of capacity  
A) 10  
B) 15  
C) 20  
D) 25

16. Which statement about the use of a protective hood is correct?  
A) It is optional if a helmet equipped with fire-resistive neck/ear flaps is worn.  
B) Any method used for donning the hood is acceptable as long as the SCBA face piece seal is tested and intact.  
C) First don the hood and then apply the SCBA face piece straps over it, making sure the hood is clear of the seal.  
D) Don the SCBA face piece first and then pull the hood up over it.

17. Which type of breathing apparatus recycles the user's exhaled air?  
A) Closed circuit  
B) Air-purifying respirator  
C) Supplied air  
D) Powered air
18. Smoke has _____ major components.
   A) 2
   B) 3
   C) 4
   D) 5

19. Which component of structural turnout coats is critical for protecting the body from steam burns?
   A) Moisture barrier
   B) Thermal barrier
   C) Outer shell
   D) Insulation

20. Which fire gas kills by replacing oxygen in the blood?
   A) Sulfur dioxide
   B) Hydrogen cyanide
   C) Carbon monoxide
   D) Phosgene

21. A chemical reaction that produces heat is __________.
    A) exothermic
    B) thermodynamic
    C) isothermic
    D) endothermic

22. Which toxic gas is commonly produced by fire?
    A) Hydrogen sulfide
    B) Nitrogen sulfide
    C) Hydrogen cyanide
    D) Acrolein

23. Which form of heat transfer consists of kinetic energy moving from one particle to another?
    A) Induction
    B) Reduction
    C) Conduction
    D) Convection
24. What is the term for a rapid chemical process in which the combination of a substance with oxygen produces heat and light?
   A) Oxidation
   B) Combustion
   C) Pyrolysis
   D) Convection

25. Which situation is indicated when you open a door and the smoke exits through the top half of the door and clean air enters through the bottom half?
   A) Disturbance of thermal layering
   B) An under-ventilated fire
   C) The fire is on the same level as the door
   D) Nonsurvivable conditions for occupants

26. What is the second phase of fire?
   A) Growth
   B) Flameover
   C) Fully developed
   D) Incipient

27. Heat transfer in the form of invisible waves is called __________.
   A) conduction
   B) radiation
   C) convection
   D) emission

28. Which class of fire involves ordinary combustibles such as wood and paper?
   A) A
   B) B
   C) C
   D) D

29. The movement of heated gases in a fire is an example of which form of heat transfer?
   A) Circulation
   B) Radiation
   C) Conduction
   D) Convection
30. Friction is a form of __________ energy.
   A) radiant
   B) molecular
   C) mechanical
   D) kinetic

31. In a building fire, you observe warped steel structural members. What is the correct action to take?
   A) No specific action is required
   B) Direct a hose stream on the members
   C) Inform the incident commander of your observations
   D) Immediately withdraw from the building

32. Which term is a measure of whether a material will burn?
   A) Conductivity
   B) Combustibility
   C) Pyrolytic index
   D) Specific heat

33. Type II construction is referred to as __________.
   A) ordinary
   B) fire resistive
   C) fire retardant
   D) noncombustible

34. What are laminated glass windows likely to do when exposed to a fire?
   A) Crack but remain in place
   B) Shatter into small nuggets with dull edges
   C) Break irregularly into long, sharp-edged shards
   D) Melt

35. The primary purpose of the __________ is to transfer the weight of the building and its contents to the ground.
   A) foundation
   B) floor joists
   C) piers
   D) grade truss
36. What is the lower structural member of a truss called?
   A) Chord
   B) Beam
   C) Girder
   D) Cantilever

37. Fire-retardant wood is treated with __________.
   A) aluminum oxide
   B) mineral salts
   C) calcium sulfate
   D) urea

38. Which type of truss has a curved upper member and a straight lower member?
   A) Lightweight
   B) Engineered
   C) Open web
   D) Bowstring

39. The structural components of a Type _____ building will not burn.
   A) II
   B) III
   C) IV
   D) V

40. What is a disadvantage of fire-resistive construction?
   A) The lack of built-in fire protection systems
   B) Non-fire-resistive structural members
   C) Difficulty in ventilating the structure
   D) Susceptibility to water damage

41. If a private residence has a single fire extinguisher, where should it be located?
   A) Garage
   B) Near the bedrooms
   C) Kitchen
   D) Laundry area
42. For an extinguishing agent to be approved for use on energized electrical equipment, it must __________.
   A) be electrically nonconductive
   B) leave no residue
   C) form a vapor barrier
   D) be safe for use in a closed room

43. A Class K agent's effect on the fuel is known as __________.
   A) emulsification
   B) saponification
   C) dissolution
   D) hydrolyzation

44. The weight of carbon dioxide is about __________ the weight of air.
   A) half of
   B) equal to
   C) one-and-a-half times
   D) twice

45. What is the primary extinguishing mechanism of dry chemical agents?
   A) Suppressing vapor production
   B) Forming a crust over the fuel
   C) Interrupting the chemical chain reaction
   D) Displacing oxygen

46. For the purpose of extinguisher selection and placement, light hazard environments usually contain a limited amount of combustibles of which class?
   A) K
   B) B
   C) C
   D) D

47. What does a rating of 40 on a Class B extinguisher mean?
   A) BTU absorption comparable to 40 gallons of water
   B) Sufficient extinguishing power for 40 square feet of burning fuel
   C) Sufficient extinguishing power for 40 gallons of burning fuel
   D) Discharge duration of at least 40 seconds
48. What is used to pressurize a stored-pressure water extinguisher?
   A) Compressed air
   B) Nitrogen
   C) Water
   D) Carbon dioxide

49. Which of the following is one of the three basic components required for fire?
   A) An ignition source
   B) A catalyst
   C) Carbon
   D) Oxygen

50. Which class of fire is depicted in the pictograph system by a burning trash can next to a wood fire?
   A) A
   B) B
   C) D
   D) K

51. Which statement about the use of existing roof openings for vertical ventilation is correct?
   A) Existing roof openings are generally impractical to force open.
   B) Existing roof openings should be used whenever possible.
   C) No additional openings should be cut in a roof that has preexisting openings.
   D) Existing roof openings are generally too small to be useful.

52. Which wrench has a closed end and is used to tighten nuts or bolts?
   A) Adjustable
   B) Spanner
   C) Box-end
   D) Pipe

53. When should fire fighters begin to think about which tools they might need for a given call?
   A) At the beginning of the shift
   B) After size-up
   C) Upon arrival at the scene
   D) During the response
54. Which statement about painting hand tools is correct?
   A) Rust-inhibiting paint should be applied to the nonworking surfaces of metal tools.
   B) Paint will extend the life of wood handles.
   C) Paint will evolve flammable vapors in a fire environment.
   D) The use of paint on tools can hide defects or damage.

55. Which of the following is a common type of handsaw?
   A) Band
   B) Chop
   C) Lanier
   D) Coping

56. Rotating tools are used to assemble parts that are connected by which means?
   A) Welds
   B) Nails
   C) Rivets
   D) Threaded fasteners

57. Which phase of a fire-ground operation involves the observation and evaluation of factors used to determine the strategy and tactics to be employed?
   A) Evaluation
   B) Investigation
   C) Initial assessment
   D) Size-up

58. Which tool is a hand-powered hydraulic spreader tool?
   A) Spanner
   B) Kelly
   C) Rabbet
   D) Pivot

59. For which application would the use of a pick-head axe be incorrect?
   A) Ventilating a roof
   B) Prying up boards
   C) Striking another tool
   D) Puncturing a door
60. What is required to perform vertical ventilation?
   A) A positive-pressure fan
   B) An opening in the top of the building
   C) A smoke ejector
   D) A roof ladder

61. Compared to a natural fiber rope, a synthetic fiber rope __________.
   A) has a smaller diameter than a natural fiber rope of equal strength
   B) is weakened to a lesser degree by knots
   C) is more susceptible to heat damage
   D) is less susceptible to damage from acid or alkali exposure

62. Which question is important to consider when inspecting life safety ropes?
   A) Has the rope ever been under load?
   B) How long has the rope been in storage?
   C) Has the rope been subject to shock loading?
   D) Has the rope been exposed to sunlight?

63. Which family of knots is used primarily to attach a rope around an object?
   A) Hitches
   B) Bends
   C) Bights
   D) Loops

64. A rope with minimal stretch under load is __________.
   A) dynamic
   B) fixed
   C) static
   D) pliant

65. Which knot is typically used to tie together two ropes of unequal size?
   A) Bowline
   B) Half hitch
   C) Square
   D) Becket bend
66. What is a common cause of deterioration in natural fiber ropes?
   A) Storage in a low-humidity environment
   B) Mildew
   C) Storage in a rope bag
   D) Infrequent use

67. What is the term for the part of a rope used to form a knot?
   A) Running end
   B) Standing part
   C) Bight
   D) Working end

68. Prolonged exposure to __________ light can damage synthetic ropes.
   A) ultraviolet
   B) infrared
   C) polarized
   D) spectral

69. When is the use of utility rope appropriate?
   A) When the total load is less than 750 lb (340 kg)
   B) For static loads only
   C) When the rope will not be supporting people
   D) In situations where the rope will likely be damaged

70. Which part of a rope is used for hoisting?
   A) Running end
   B) Working end
   C) Standing part
   D) Free end

71. In which situation should utility company personnel be called to interrupt power from a remote location?
   A) Wires outside the fire building are damaged
   B) Multiple hose lines are in use
   C) The building houses multiple living units
   D) Occupants are non- or semi-ambulatory
72. At a minimum, a dispatch message should include which item of information?
   A) Assigned tactical radio frequency
   B) Location of the reporting party
   C) Level of severity
   D) Type of emergency

73. How much risk should fire fighters take to attempt to recover a victim who has no chance of surviving?
   A) None
   B) A little
   C) A lot
   D) Unlimited

74. At a traffic accident scene, apparatus should be __________.
   A) parked as far to the right as possible
   B) parked in the left-hand lane immediately adjacent to the scene
   C) positioned on the opposite side of the scene as the oncoming traffic
   D) positioned to create a barrier between the oncoming traffic and the scene

75. A company officer gives the incident commander the results of inspection and exploration of a specified area in a__________.
   A) report on conditions
   B) reconnaissance report
   C) size-up
   D) situation status report

76. Which construction feature of older buildings provides a path for rapid spread of fire?
   A) Unreinforced masonry
   B) Platform construction
   C) Lath and plaster interior finish
   D) Balloon-frame construction

77. What is a common indicator of hidden fire burning within a wall?
   A) Deformation
   B) Crackling sounds
   C) Blistering paint
   D) Charring of gypsum board
78. Which tool can be used to operate a natural gas supply valve?
   A) Hydrant wrench
   B) Adjustable wrench
   C) Flat-head screwdriver
   D) Strap wrench

79. Which term describes operations undertaken to prevent avoidable property loss?
   A) Salvage
   B) Overhaul
   C) Recovery
   D) Property conservation

80. Which type of attack is typically used for a small fire in a room?
   A) Combination
   B) Offensive
   C) Quick
   D) Transitional

81. Which action should fire fighters perform first before forcing a door?
   A) Gap the door
   B) Check for the presence of a dead-bolt
   C) Sound the surrounding wall
   D) Look for a glass panel in or adjacent to the door

82. For forcible entry, who usually determines the point of entry and method to be used?
   A) Chief officer
   B) Company officer
   C) Fire fighter
   D) Incident commander

83. Ideally, when forcible entry is used, what should fire fighters do before leaving the scene?
   A) Make the occupant aware of the unsecured openings
   B) Take steps to secure the building
   C) Bring the matter to the attention of law enforcement personnel
   D) Photograph and document the damage
84. What is the term for a small opening in which a prying tool can be inserted?
   A) Maw
   B) Anchor
   C) Purchase
   D) Bite

85. How much damage is caused by forcing the locks on double-hung windows?
   A) None
   B) Minor
   C) Moderate
   D) Extensive

86. Which tool is designed for both cutting and prying?
   A) Bam-bam
   B) Ram bar
   C) Halligan
   D) Pry axe

87. Which circular saw blade is susceptible to damage from gasoline vapors?
   A) All blades
   B) Masonry
   C) Wood
   D) Polycarbonate

88. Which part of a door lock catches and holds the door frame?
   A) Latch
   B) Mortise
   C) Striker
   D) Shackle

89. Which type of glass is normally used in automobile windshields?
   A) Annealed
   B) Reinforced
   C) Laminated
   D) Tempered
90. Forcible entry tools are classified by type. What is one of those classifications?
   A) Lever
   B) Striking
   C) Nondestructive
   D) Rotary

91. When should the building be used to anchor the butt during a ladder raise?
   A) For any single-fire-fighter ladder raise
   B) When laddering a building without eaves
   C) When sending a roof ladder aloft
   D) When a single fire fighter raises an extension ladder

92. Before raising an extension ladder, you should check to make sure the __________.
   A) foot is heeled
   B) area is clear of overhead obstructions
   C) halyard is secure
   D) dogs are locked

93. A ladder is carried at arm's length in a(n) ___________ carry.
   A) quick
   B) suitcase
   C) arm
   D) grab

94. A ladder consisting of a single section is called a _________ ladder.
   A) ground
   B) straight
   C) roof
   D) fly

95. Which term describes the top or bottom section of a trussed beam?
   A) Dog
   B) Block
   C) Rung
   D) Rail
96. How many points of contact should a fire fighter maintain with the ladder when checking the stability of a roof surface?
   A) 1
   B) 2
   C) 3
   D) 4

97. For a ladder contacting the wall 20 ft (6 m) above the ground, the base should be _____ from the wall.
   A) 3 ft (1 m)
   B) 4 ft (1.2 m)
   C) 5 ft (1.5 m)
   D) 6 ft (1.8 m)

98. Which ladder is carried with the tip forward?
   A) Straight
   B) Extension
   C) Attic
   D) Roof

99. Before climbing a ladder, fire fighters should make sure it is __________.
   A) chocked
   B) blocked
   C) unoccupied
   D) heeled

100. When standing upright on a rung, how far should the rung at shoulder height be from the fire fighter?
    A) Half an arm's length
    B) About 12 in. (30 cm)
    C) An arm's length
    D) About 24 in. (61 cm)

101. What is the main purpose of the secondary search?
    A) Remove remaining occupants
    B) Locate deceased victims
    C) Double-check the primary search area
    D) Find evidence of cause and origin
102. When is a secondary search performed?
   A) After the fire is under control or fully extinguished
   B) Immediately upon completion of the primary search
   C) As soon as personnel become available
   D) Simultaneously with the primary search

103. When rescuing an unconscious victim from a window, how many fire fighters enter the window to assist the victim?
   A) None
   B) One
   C) Two
   D) Three

104. How does vent–entry–search differ from conventional search and rescue?
   A) The fire is ventilated before entry is made
   B) A window is used for entry and exit
   C) The fire fighter is attached to a guide rope
   D) All windows and doors are propped open during the search

105. When rescuing an unconscious child or small adult from a window, how many rescuers enter the window to assist the victim?
   A) 0
   B) 1
   C) 2
   D) 3

106. How much risk to fire fighters is acceptable in attempting to save valuable property?
   A) None
   B) Limited
   C) Significant
   D) Unlimited

107. When is an exception made to the two-in/two-out rule?
   A) There are no exceptions; the rule applies to all IDLH entries
   B) When it will delay operations due to lack of personnel
   C) In life-threatening situations where immediate action can save a life
   D) In IDLH entries where there is no visible fire
108. In the two-part marking system for indicating which rooms have been searched, which symbol means a search is complete?
A) A circle with a diagonal slash
B) A diagonal slash
C) An X
D) The letters SC

109. The two-person chair carry is particularly useful __________.
A) for victims with possible spinal injury
B) in heavy smoke conditions
C) for obese victims
D) in narrow corridors

110. In which type of search pattern do fire fighters turn right upon entry to a room and then turn left at each corner around the room?
A) Oriented
B) Counterclockwise
C) Left-hand
D) Standard

111. What is the term for the transfer of heat through a circulating medium of liquid or gas?
A) Conduction
B) Radiation
C) Condensation
D) Convection

112. When ventilating the basement, where is the preferred location to ventilate?
A) The most accessible location
B) The point farthest away from the entrance used by the fire attack crew
C) The stairway from the upper level
D) Any preexisting opening

113. How do thermopane windows affect fire behavior?
A) Decrease the likelihood of backdraft
B) Improve ventilation
C) Allow for faster heat build-up within the structure
D) Are more likely to break when exposed to heat
114. Churning most frequently occurs with which form of ventilation?
   A) Positive-pressure
   B) Vertical
   C) Horizontal
   D) Negative-pressure

115. What occurs when room temperature reaches the ignition point of the combustibles within it?
   A) Mushrooming
   B) Backdraft
   C) Flashover
   D) Lapping

116. Smoke produced by a small fire involving ordinary combustibles is __________.
   A) gray and fast moving
   B) black and thick
   C) mustard or brown and wispy
   D) light colored and lazy

117. Which sort of air movement is likely on a hot day in an air-conditioned tall building?
   A) Updraft
   B) Churning
   C) Stratification
   D) Downdraft

118. Which statement about hydraulic ventilation is correct?
   A) A medium-diameter line is required.
   B) A straight or solid stream is used.
   C) The ventilation crew is not exposed to products of combustion.
   D) Hydraulic ventilation effectively moves large volumes of smoke and heat.

119. How can churning be eliminated during smoke ejection?
   A) Pull the fan back a few inches
   B) Completely block the opening around the fan
   C) Increase the number or size of exhaust openings
   D) Raise the fan in the opening
120. All forms of ventilation that use fans or other powered equipment are classified as ________ ventilation.
A) assisted  
B) hydraulic  
C) mechanical  
D) positive-pressure

121. In a ________ lay, the hose is laid out from the fire to the hydrant.
A) relay  
B) defensive  
C) reverse  
D) hydrant

122. How can you determine that a dry-barrel hydrant is still draining?
A) Place a hand on the stem nut and feel for vibration  
B) Look for a continuing trickle from the discharge outlet  
C) Place a hand over an outlet and feel for suction  
D) Listen carefully for a hissing sound

123. Which of the following is one of the three factors that determine friction loss?
A) Ambient temperature  
B) Hose diameter  
C) Atmospheric pressure  
D) Water source

124. An engine lays hose from a water source to the fire scene in a ________ lay.
A) single  
B) standard  
C) basic  
D) forward

125. When water is motionless, which kind of energy does it have?
A) Residual  
B) Static  
C) Potential  
D) Kinetic
126. The pipes that deliver water to users and hydrants on individual streets are __________.
   A) service lines  
   B) secondaries  
   C) distributors  
   D) cross mains

127. Which device splits one hose stream into two hose streams?
   A) Siamese  
   B) Splitter  
   C) Wye  
   D) Water thief

128. Which supply line load is capable of laying both single and dual supply lines?
   A) Twin  
   B) Detroit  
   C) Horseshoe  
   D) Split bed

129. The pressure in a system when no water is flowing is called ________ pressure.
   A) static  
   B) operating  
   C) flow  
   D) residual

130. How does a doughnut hose roll differ from a straight hose roll?
   A) Both couplings are in the middle  
   B) The two couplings are connected  
   C) Both couplings are on the outside  
   D) The female coupling is on the outside

131. Which type of hose ranges in size from 2½" (65 mm) to 3" (75 mm) in diameter?
   A) Supply  
   B) Medium  
   C) Large  
   D) Master
132. Which attack line load is particularly useful when the line must be advanced up a stairway?
   A) Triple layer
   B) Wyed lines
   C) Minuteman
   D) Skid

133. When using a standpipe connection in a stairwell, how should the hose be arranged?
   A) Up the stairwell toward the floor above the fire
   B) Back and forth on the landing
   C) Down the stairwell toward the floor below the fire floor
   D) In large coils on the landing nearest the fire floor

134. Which type of fog-stream nozzle provides a flow between 90 and 225 gpm (340 and 852 lpm)?
   A) Fixed-gallonage
   B) Automatic-adjusting
   C) Adjustable-gallonage
   D) Variable pattern

135. What is the correct procedure for the triple-layer load?
   A) Half the load is shouldered and the other half pays off from the ground
   B) The nozzle is attached to the bottom layer
   C) The entire load must be on the ground before the nozzle can be advanced
   D) Each layer should be a single length of hose

136. Which attack line load is often coupled to a larger-diameter line?
   A) Triple layer
   B) Split
   C) Minuteman
   D) Wyed lines

137. Which hose diameter is used as both supply line and attack handline?
   A) 1 ¼" (45 mm)
   B) 2½" (64 mm)
   C) 2¾" (70 mm)
   D) 3" (76 mm)
138. Which statement about operating a nozzle from a ground ladder is correct?
   A) This is a risky operation that should be avoided whenever possible.
   B) The ladder should be tied off to the building.
   C) Two parallel ladders are required for this operation.
   D) The hose must be tied securely to the ladder.

139. Which type of hose ranges in size from 1" to 1½" (25 to 38 mm) in diameter?
   A) Forestry
   B) Medium
   C) Handline
   D) Booster

140. For which preconnected hose load does the fire fighter shoulder part of the load, with
     hose paying off the top of that load as the fire fighter advances?
   A) Triple layer
   B) Skid
   C) Minuteman
   D) Forestry

141. A personnel accountability report is commonly performed in which situation?
   A) As each resource checks in to the command post
   B) Upon entry of a company into the hazardous area
   C) Upon occurrence of a significant event
   D) Upon activation of a low-air alarm

142. Tracking every company working at an incident from the time they arrive until the time
     they are released is the function of the __________ system.
   A) resource tracking
   B) roll call
   C) personnel accountability
   D) check-in

143. When are company officers and safety officers involved in risk–benefit analysis?
   A) When assigned this task by the incident commander
   B) On a continuous basis
   C) At each completion benchmark
   D) At the beginning and end of each operational period
144. What happens to the personnel accountability passports at the scene of an incident?
   A) They are carried by the company officer
   B) They are left with a designee at the command post or hazardous area entry point
   C) They are left in the cab of the apparatus to be collected by a designee
   D) They are distributed to the company members

145. You are alone in zero-visibility conditions and unable to find an exit. Which action listed below should you take last?
   A) Declare a “mayday” over your radio
   B) Give a LUNAR report
   C) Activate your personal alert safety system (PASS)
   D) Attempt self-rescue

146. Upon arrival at a fire, how can on-call volunteer fire fighters establish team integrity?
   A) Operate to best tactical advantage
   B) Establish a staging area
   C) Assemble into companies
   D) Establish a personnel accountability system

147. What does the “A” stand for in “LUNAR”?
   A) Assignment
   B) Air supply
   C) Area
   D) Assistance needed

148. What is the most basic method for staying oriented inside a low-visibility environment?
   A) Staying in contact with the hose line
   B) Staying in contact with a partner
   C) Use of a guide rope
   D) Staying in contact with a wall

149. What is the term for a roll call taken by a supervisor at an emergency incident?
   A) Resource status report
   B) Status and location check
   C) Personnel safety check
   D) Personnel accountability report
150. A temporary location that provides refuge while awaiting rescue or finding a method of self-rescue from a hazardous situation is a(n) __________.
   A) in-place shelter  
   B) safe location  
   C) secure room  
   D) emergency refuge

151. Which item is commonly used to improvise a water chute?
   A) Hard suction hose  
   B) Water vacuum  
   C) Attic ladder  
   D) Salvage cover

152. A long section of protective material used to protect flooring or carpet is a __________.
   A) floor roll  
   B) salvage mat  
   C) carpet cover  
   D) floor runner

153. What is the best way to extinguish a smoldering mattress?
   A) Place it flat on the floor and soak it  
   B) Apply Class A foam to the smoldering area  
   C) Take it outside and soak it  
   D) Open the mattress and thoroughly wet the smoldering area

154. What is the most reliable method for determining whether there is hidden fire?
   A) Direct inspection  
   B) Thermal imaging  
   C) Odor/sight of smoke  
   D) Atmospheric monitoring

155. Which of the following is the best definition of salvage?
   A) Efforts taken to contain an incident to its area of origin  
   B) The search for and extinguishment of hidden or residual fire  
   C) Actions taken to save property and reduce damage caused by fire  
   D) Procedures for the preservation of evidence of fire cause
156. Which device interrupts the current when there is a problem with an electrical ground?
   A) ECB
   B) EGR
   C) GCI
   D) GFI

157. When should a sprinkler system be shut down?
   A) Prior to beginning salvage operations
   B) When overhaul is complete
   C) When the IC declares the fire to be under control
   D) Upon connection to the FDC

158. What is a common location for a sprinkler system OS&Y valve?
   A) On the service side of the water meter
   B) In an underground service box
   C) In a utility or mechanical room
   D) Outside next to the post indicator valve

159. What is the maximum wattage that an apparatus-mounted generator can produce?
   A) Less than 5000 watts
   B) Between 5000 and 10,000 watts
   C) Between 10,000 and 15,000 watts
   D) 20,000 or more watts

160. A fire cannot be considered fully extinguished until _______ is complete.
   A) loss control
   B) overhaul
   C) secondary search
   D) the suppression operation

161. Hypothermia is defined as body temperature less than _____.
   A) 89°F (32°C)
   B) 91°F (33°C)
   C) 93°F (34°C)
   D) 95°F (35°C)
162. What is the body's primary source of energy?
   A) Glucose
   B) Insulin
   C) Electrolytes
   D) Protein

163. Which condition is defined as an internal body temperature less than 95°F (35°C)?
   A) Cold stroke
   B) Hypothermia
   C) Frost bite
   D) Exposure

164. The body's ability to absorb fluid is limited to approximately __________ per hour.
   A) 1 ounce (30 mL)
   B) 1 pint (0.5 L)
   C) 1 quart (1 L)
   D) 1 gallon (4 L)

165. How are rehabilitation concerns affected by high humidity?
   A) Time spent in rehab can be reduced
   B) Rehab time must be doubled
   C) The likelihood of hypothermia increases with humidity
   D) Regulation of body temperature is more difficult

166. A PPE ensemble weighs at least _____.
   A) 25 lb (11 kg)
   B) 40 lb (18 kg)
   C) 60 lb (27 kg)
   D) 75 lb (34 kg)

167. What is a common sign or symptom of high blood glucose?
   A) Syncope
   B) Profuse sweating
   C) Sluggish feeling
   D) Nausea/vomiting
168. Localized tissue damage resulting from prolonged exposure to cold is called
          __________.
          A) frostbite
          B) coldsnap
          C) hypothermia
          D) frostnip

169. How should fire fighters be released from rehabilitation?
          A) Individuals should be released as they complete the rehab process
          B) Personnel should be released on an as-needed basis
          C) Personnel should check out in the same order that they checked in
          D) All members of a company should be released together

170. Which of the following is a component of the seven-part rehabilitation model?
          A) Stress management
          B) Debriefing
          C) Medical monitoring
          D) Rotation

171. Which type of wildland fire attack is made on the fire's burning edge?
          A) Direct
          B) Offensive
          C) Frontal
          D) Indirect

172. Typical backpack pumps contain __________.
          A) 2 to 4 gal (7.5 to 15 L)
          B) 4 to 8 gal (15 to 30 L)
          C) 5 to 10 gal (19 to 38 L)
          D) 8 to 12 gal (30 to 45 L)

173. Which of the following is an example of a fine fuel?
          A) Root
          B) Stick
          C) Branch
          D) Grass
174. What is a consequence of falling relative humidity?
   A) Falling burn index
   B) Decreased fuel moisture
   C) Decreased ignitability
   D) Increased lapse rate

175. What is slash?
   A) Partially decomposed organic matter
   B) Debris from logging or clearing operations
   C) Seasonal ground cover
   D) Partially burned fuel

176. What is another term for surface fuels?
   A) Litter
   B) Duff
   C) Ground
   D) Understory

177. The most rapidly moving part of a wildland fire is the __________.
   A) foot
   B) apex
   C) head
   D) point

178. What is one of the 10 standard wildland firefighting orders?
   A) Base all actions on current and expected fire behavior
   B) Do not attempt to outrun a fire uphill
   C) Focus on what is not burning, rather than what is burning
   D) Attack the flanks of the fire, not the head

179. The smothering method of extinguishment is most frequently used in which wildland operation?
   A) Direct attack
   B) Cold trailing
   C) Indirect attack
   D) Overhaul
180. Which term means areas where undeveloped land with vegetative fuels is mixed with human-made structures?
   A) Rural–urban intermix
   B) Rural development zone
   C) Greenbelt
   D) Wildland–urban interface

181. How should fire fighters approach a vehicle fire?
   A) 90-degree angle from the side
   B) 45-degree angle from the side
   C) Directly from the front
   D) Directly from the rear

182. Which firefighting attack, if successful, will result in the least amount of property damage?
   A) Offensive
   B) Combination
   C) Indirect
   D) Defensive

183. How much risk to fire fighters' lives is acceptable in attempting to minimize damage to property that is already severely damaged?
   A) None
   B) A little
   C) A moderate amount
   D) A lot

184. A master stream device that is permanently mounted on an engine and plumbed directly into the pump is a __________.
   A) monitor
   B) deck gun
   C) playpipe
   D) deluge set

185. Which cancer-causing material do transformers contain?
   A) Polyphenyl chlorinates
   B) Biphenyl chlorinates
   C) Polychlorinated vinyls
   D) Polychlorinated biphenyls
186. Defensive firefighting operations are conducted from which location?
   A) Interior
   B) Roof
   C) Exterior
   D) Exposure

187. Which statement is correct about simultaneous offensive and defensive operations at the same building?
   A) Simultaneous offensive and defensive operations may be a useful tactic for large industrial buildings.
   B) Simultaneous offensive and defensive operations may be necessary until the completion of the primary search.
   C) Simultaneous offensive and defensive operations are dangerous and should not be done.
   D) Simultaneous offensive and defensive operations are useful for a small fire that is threatening exposures.

188. Portable monitors, deck guns, and ladder pipes are examples of ________.
   A) handlines
   B) aerial streams
   C) deluge sets
   D) master stream devices

189. What is the best item to aid extinguishment of smoldering fires in tightly packed combustible materials?
   A) Class A foam
   B) Piercing nozzle
   C) Water fog
   D) Dry chemical

190. Why is it necessary to limit the lowest stream angle of a portable monitor?
   A) To ensure the safety of crews and equipment operating nearby
   B) To minimize flooding around the monitor
   C) To reduce stress on the supply lines
   D) To prevent instability of the monitor
191. To replace a sprinkler head, what is the next step after the main water supply control valve is closed?
   A) Replace the sprinkler head
   B) Insert a new link or bulb
   C) Open the drain
   D) Close the branch line

192. Placing an electric heater too close to combustible materials is an example of which subtype of electrical fire cause?
   A) Improper use
   B) Worn-out or defective
   C) User negligence
   D) Defective installation

193. Prior to any official statement by his or her department, how should a fire fighter respond to an inquiry about the cause of a fire?
   A) “Findings will be made public at the earliest possible time”
   B) “The fire is under investigation”
   C) “No comment”
   D) “The fire is of unknown origin”

194. Fifty-year-old deteriorating wiring is an example of which subtype of electrical fire cause?
   A) Defective installation
   B) Worn-out or defective equipment
   C) Improper use of equipment
   D) Deferred maintenance

195. Why should fire fighters understand the basic principles of fire investigation?
   A) They may have to detain or question suspects or witnesses
   B) They may be called to serve as cause investigators
   C) An understanding of fire cause aids in fire suppression
   D) It will help them to observe and preserve evidence

196. What is the term for an ignition source that has enough heat energy to ignite the fuel and remains in contact with it long enough to cause ignition?
   A) Proximate
   B) Competent
   C) Causative
   D) Effectual
197. What is the primary indicator of the point of origin in a structure fire?
   A) Shape of floor char
   B) Depth of smoke stains
   C) Burn pattern on a wall
   D) Color of smoke

198. What is the term for materials used to start a fire?
   A) Trailer
   B) Accelerant
   C) Igniter
   D) Incendiary device

199. According to NFPA statistics, the value of direct property damage caused by structure fires in the United States in 2010 was _____.
   A) $5.1 billion
   B) $9.7 billion
   C) $16.3 billion
   D) $22 billion

200. What is indicated by a fire that flares up when water is applied to it?
   A) Use of trailers
   B) An incendiary device
   C) Presence of an ignitable liquid
   D) Structural alterations

201. Which of the following is a requirement of a competent ignition source?
   A) Design and intent
   B) Heat source and fuel in contact long enough to reach ignition temperature
   C) An act or omission
   D) A mechanical or chemical process
Answer Key

1. C
2. C
3. A
4. D
5. D
6. D
7. A
8. D
9. D
10. D
11. D
12. D
13. A
14. A
15. D
16. D
17. A
18. B
19. A
20. C
21. A
22. C
23. C
24. B
25. C
26. A
27. B
28. A
29. D
30. C
31. D
32. B
33. D
34. A
35. A
36. A
37. B
38. D
39. A
40. C
41. C
42. A
43. B
44. C
45. C
46. B
47. B
48. A
49. D
50. A
51. B
52. C
53. D
54. D
55. D
56. D
57. D
58. C
59. C
60. B
61. A
62. C
63. A
64. C
65. D
66. B
67. D
68. A
69. C
70. A
71. A
72. D
73. A
74. D
75. B
76. D
77. C
78. B
79. A
80. B
81. D
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84. D
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86. D
87. B
88. A
89. C
90. B
137. B
138. D
139. A
140. C
141. C
142. C
143. B
144. B
145. D
146. C
147. A
148. A
149. D
150. B
151. D
152. D
153. C
154. A
155. C
156. D
157. C
158. C
159. D
160. B
161. D
162. A
163. B
164. C
165. D
166. B
167. C
168. A
169. D
170. C
171. A
172. B
173. D
174. B
175. B
176. C
177. C
178. A
179. D
180. D
181. B
182. A