

# Chapter 10 Test

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Directions:** Write the correct letter on the blank before each question.

- \_\_\_\_\_ 1. Which condition specific to search and rescue operations should be communicated to crew members and/or your supervisor? (433) [4.3.9]
- A. Wind direction and speed
  - B. Names of victims or occupants
  - C. Building's construction classification
  - D. Known locations of victims or occupants
- \_\_\_\_\_ 2. Which basic firefighting skill serves as an essential survival skill during search and rescue operations? (434) [4.3.5, 4.3.9]
- A. Forcing a window or cutting through debris
  - B. Using air monitoring devices to sample the atmosphere
  - C. Using a hoseline to perform hydraulic ventilation
  - D. Operating a portable fire extinguisher to put out an incipient fire
- \_\_\_\_\_ 3. Under normal conditions, air management increases your work time, but if you are lost or trapped, it: (434) [4.3.5, 4.3.9]
- A. decreases the amount of time you can survive before escaping or being rescued.
  - B. increases the amount of time you can survive before escaping or being rescued.
  - C. will decrease your survivable time before rescue and increase your energy output.
  - D. will not be effective, because adrenaline and stress will drastically increase your consumption rate.

- 
- \_\_\_\_\_ 4. To be physically and mentally prepared for survival during search and rescue operations, you should: (434) [4.3.5, 4.3.9]
- A. push yourself past your limits.
  - B. follow orders without question.
  - C. practice emergency exit techniques.
  - D. allow the IC to look out for your crew members' safety.
- \_\_\_\_\_ 5. Panic, claustrophobia, and disorientation are effects of: (434-435) [4.3.5, 4.3.9]
- A. pulmonary edema.
  - B. obscured vision conditions.
  - C. long-term exposure to radiation.
  - D. chronic exposure to products of combustion.
- \_\_\_\_\_ 6. Which situation would require a firefighter to call a MAYDAY? (435) [4.2.4, 4.3.5, 4.3.9]
- A. SCBA malfunction
  - B. Portable radio malfunction
  - C. Encountering a hazardous materials spill
  - D. Finding unidentified victims or occupants
- \_\_\_\_\_ 7. For firefighters, the environment may remain tenable as long as: (436) [4.3.5, 4.3.9]
- A. they are wearing PPE and SCBA.
  - B. the IC determines it is safe to remain inside.
  - C. they are wearing the highest levels of PPE and SCBA designated for rescue operations.
  - D. heat levels and duration of the interior operations stay within acceptable limits for the PPE and SCBA provided.
- \_\_\_\_\_ 8. Rooms or closet areas where the door can be closed to prevent the spread of heat, smoke, and toxic gases into that space are called: (436) [4.3.5, 4.3.9]
- A. safe havens.
  - B. escape rooms.
  - C. protective units.
  - D. fireproof assemblies.

- 
- \_\_\_\_\_ 9. Why should firefighters exit the IDLH before their low-pressure alarm activates? (436) [4.3.5, 4.3.9]
- A. The remaining air is insufficient to exit even if no emergencies occur.
  - B. Hearing the alarm may cause panic, which will speed up air consumption.
  - C. The remaining air is an average, not specific to each firefighter, so it may be insufficient to exit from both short and long distances.
  - D. The remaining air is insufficient to exit from deep inside a large structure and does not take into account emergencies that may be encountered.
- \_\_\_\_\_ 10. Which of the following is one of the three principles of air management? (437) [4.3.5, 4.3.9]
- A. Know your point of no return.
  - B. Always use short, quick breaths.
  - C. Leave the structure when your cylinder reaches 50% capacity.
  - D. Turn your SCBA off once you have found an area of safe haven.
- \_\_\_\_\_ 11. When should you check your SCBA gauge to see how much air you have left? (437) [4.3.5, 4.3.9]
- A. Every two minutes
  - B. When the assigned area is reached
  - C. Every time a new area or room is reached
  - D. Within 30 seconds of entering an IDLH atmosphere
- \_\_\_\_\_ 12. Your point of no return is based on: (437) [4.3.5, 4.3.9]
- A. how many people need to be rescued.
  - B. how many members are on the rescue team.
  - C. the lowest cylinder gauge reading of any member of the team.
  - D. the highest cylinder gauge reading of any member of the team.
- \_\_\_\_\_ 13. You should leave the hazard zone: (438) [4.2.4, 4.3.5]
- A. if a PASS alarm is activated.
  - B. at the same time as your team.
  - C. once all victims have been rescued.
  - D. when you reach 50% air consumption.

- \_\_\_\_\_ 14. Actions such as opening a bypass valve on a cylinder, sharing air, and breathing directly from the cylinder are: (438) [4.3.5, 4.3.9]
- A. never allowed according to SOPs.
  - B. possible solutions to air emergencies.
  - C. suggested responses to structural collapse.
  - D. unlikely to occur at a search and rescue operation.
- \_\_\_\_\_ 15. How can you help rescuers find you if you are forced to shelter in place? (439) [4.3.9]
- A. Remain in the fire compartment
  - B. Do not go far from your assigned area
  - C. Leave all doors open and marked to indicate your location
  - D. Shine a light through available windows to draw attention to your location
- \_\_\_\_\_ 16. In which situation would firefighters likely use an air monitoring device? (440) [4.3.21]
- A. Fire in a trash container
  - B. A car accident requiring victim extrication
  - C. When assisting a high-angle rescue team
  - D. A medical call where multiple victims have collapsed for an unknown reason
- \_\_\_\_\_ 17. Firefighters use air-monitoring devices to: (440) [4.3.21]
- A. measure ambient air temperatures.
  - B. inspect the air inside apparatus tires.
  - C. test the air quality in an SCBA cylinder.
  - D. detect oxygen levels and hazardous substances.
- \_\_\_\_\_ 18. Which is an accurate statement about using an air-monitoring device? (441) [4.3.21]
- A. Only one type of air-monitoring device should be used at an incident.
  - B. Air-monitoring devices must be used under the supervision of a company officer.
  - C. If devices are used incorrectly, the safety of everyone around can be in jeopardy.
  - D. Air-monitoring devices can only measure one type of gas, so multiple varieties are needed at each incident.

- 
- \_\_\_\_\_ 19. If air monitoring indicates that the oxygen level in the atmosphere is below 19.5 percent, (443) [4.3.21]
- A. the IC or Incident Safety Officer should be notified.
  - B. SCBA is no longer necessary for rescuers in the area.
  - C. the area is said to be an oxygen-enriched environment.
  - D. respiratory protection other than SCBA must be used.
- \_\_\_\_\_ 20. An atmosphere is considered hazardous if it contains a hazardous gas in excess of 10 percent of the hazardous material's: (443) [4.3.21]
- A. ignition range.
  - B. flammability threshold.
  - C. lower explosive limit (LEL).
  - D. upper combustible limit (UCL).
- \_\_\_\_\_ 21. A bump test is performed to: (446) [4.3.21]
- A. reset a gas detector to factor default settings.
  - B. test the amount of oxygen in the atmosphere.
  - C. verify that a gas detector is functioning properly.
  - D. test the amount of carbon dioxide in the atmosphere.
- \_\_\_\_\_ 22. The AHJ should establish action levels that describe how firefighters should respond to high- or low-level alarms while performing: (448) [4.3.21]
- A. ventilation.
  - B. forcible entry.
  - C. air monitoring.
  - D. MAYDAY training.
- \_\_\_\_\_ 23. Before entering an IDLH environment, you must: (450) [4.3.9]
- A. don the highest level of PPE available to you.
  - B. document the exact tools and equipment you are taking into the structure.
  - C. ensure that your SCBA is turned on, working properly, and contains a full cylinder of air.
  - D. estimate the total time to be spent in the structure based on your team's average air consumption rate.

- \_\_\_\_\_ 24. In order to conduct an effective search operation, firefighters must know the: (450) [4.3.9]
- A. age of the building.
  - B. layout or floor plan of the building.
  - C. location of the nearest water supply.
  - D. time the next apparatus will respond.
- \_\_\_\_\_ 25. What types of tools and equipment do search and rescue personnel carry? (452) [4.3.9]
- A. Hydraulic rescue equipment
  - B. Power saws and hydraulic tools
  - C. pH meters and fluoride test paper
  - D. Thermal imagers and forcible entry tools
- \_\_\_\_\_ 26. An advantage of using thermal imagers during search and rescue operations is: (452) [4.3.9]
- A. improved visibility in an obscured environment.
  - B. the ability to detect fires through carpeted floors.
  - C. the ability to see through water, glass, and other reflective surfaces.
  - D. detection of people under or behind furniture and on the opposite side of walls.
- \_\_\_\_\_ 27. One limitation of thermal imagers is that: (453) [4.3.9]
- A. they have a fairly long instrument response time.
  - B. there are no fixed standards for interpretation of data.
  - C. they may not be able to help improve visibility in an obscured environment.
  - D. if a structure is carpeted, they may not be able to detect fire on the floors below.
- \_\_\_\_\_ 28. During search and rescue operations, rescuers should NOT: (453) [4.3.9]
- A. close doors during the search.
  - B. enter a structure where survivors are not likely to be found.
  - C. exit the building by turning in the opposite direction that was turned to enter.
  - D. move quickly and stay close to the wall of a hallway or room when it is filled with smoke.

- \_\_\_\_\_ 29. If a fire is encountered in a room during search and rescue operations, rescuers should: (454) [4.3.9]
- A. close the door and report the conditions.
  - B. mark the door with USAR-approved symbols.
  - C. abandon the search and immediately leave the building.
  - D. leave the door open to provide ventilation to the compartment.
- \_\_\_\_\_ 30. If an exterior wall must be breached during search and rescue operations, rescue personnel: (454) [4.3.9]
- A. should maintain contact with the search line or hoseline.
  - B. should provide the IC with a personnel accountability report (PAR).
  - C. must coordinate with the rapid intervention crew before making the opening.
  - D. must coordinate with the IC and ventilation teams before making the opening.
- \_\_\_\_\_ 31. Why must locating and isolating the fire be a priority before any search? (454) [4.3.9]
- A. Smoke from the fire makes performing searches more difficult.
  - B. Property protection is a higher incident priority than life safety.
  - C. Primary search cannot be performed until after the fire has been controlled.
  - D. Entering to search provides a ventilation opening to the structure, which could cause fire to spread.
- \_\_\_\_\_ 32. Search and rescue marks should be placed: (454) [4.3.9]
- A. in the middle of the door or the middle of the opposite wall.
  - B. on the upper third of the door or the upper third of the adjacent wall.
  - C. in the middle of the door, in the middle of the adjacent wall, or in the middle of the adjacent stairs.
  - D. on the lower third of the door, the lower third of the adjacent wall, or in the landing of the adjacent stairs.
- \_\_\_\_\_ 33. An advantage of marking with latch straps is that they: (454) [4.3.9]
- A. keep the door closed.
  - B. prevent the door from closing.
  - C. are more visible than other types of markers.
  - D. are more fire resistant than other types of markers.

- 
- \_\_\_\_\_ 34. A primary search is: (456) [4.3.9]
- A. performed by one person.
  - B. not the time to rescue victims.
  - C. a slow, thorough search conducted after the fire is under control.
  - D. a fast, thorough search performed either before or during fire suppression operations.
- \_\_\_\_\_ 35. In order to safely conduct a primary search, rescuers should: (456) [4.3.9]
- A. work in teams of two or more.
  - B. split up to cover a larger area.
  - C. wait to search until the fire has been extinguished.
  - D. move slowly and check in with the IC after searching each room.
- \_\_\_\_\_ 36. When does the secondary search take place? (456) [4.3.9]
- A. After the fire is under control
  - B. As soon as resources are available
  - C. During fire suppression operations
  - D. Before fire suppression operations
- \_\_\_\_\_ 37. Secondary searches: (456) [4.3.9]
- A. do not require SCBA.
  - B. use the same steps as primary searches.
  - C. and primary searches are conducted by the same personnel.
  - D. use different steps than the primary searches, but are just as organized.
- \_\_\_\_\_ 38. During a secondary search, rescuers should not remove SCBA until: (456) [4.3.9]
- A. the room is clear of smoke.
  - B. there are no visible flames.
  - C. it is determined that there are no remaining victims.
  - D. the supervisor or safety officer determines that the atmosphere is safe.



- \_\_\_\_\_ 39. Where should you start the search on the fire floor? (457) [4.3.9]
- A. At the entrance
  - B. As close to the fire as possible
  - C. Where victims are most likely to be
  - D. Where victims will be easiest to rescue
- \_\_\_\_\_ 40. Which action can protect the egress pathways during a search so that the search team can escape if conditions change rapidly? (458) [4.3.5, 4.3.9]
- A. Only allow one search team in an area at a time
  - B. Close doors along the egress path after rooms are searched
  - C. Open all doors in the path to make more exit points available
  - D. Use an air monitoring device to check for dangerous gas levels in the compartment
- \_\_\_\_\_ 41. If there is heavy smoke or extreme heat in a compartment that is being searched, rescuers should: (458) [4.3.9]
- A. stand to get a better view.
  - B. move below the smoke level.
  - C. attempt to extinguish the fire.
  - D. check the heat signature with a thermal imager.
- \_\_\_\_\_ 42. Why should personnel search behind doors and on the floor below windows? (460) [4.3.9]
- A. Visibility and air quality are best in these places.
  - B. These places must be marked in the primary search.
  - C. Occupants are most likely to find shelter in these places.
  - D. Smoke may overcome occupants while they are trying to escape.
- \_\_\_\_\_ 43. In which search method does the leader remain at a fixed point while searching team members spread out through a room to complete a search? (461) [4.3.9]
- A. VEIS method
  - B. Shelter-in-place method
  - C. Oriented-search method
  - D. Wide-area search method

- \_\_\_\_\_ 44. Which search method employs the use of markers such as knots at regular intervals along the search line to indicate distance from the beginning of the search line? (461) [4.3.9]
- A. VEIS method
  - B. Self-evacuation method
  - C. Oriented-search method
  - D. Wide-area search method
- \_\_\_\_\_ 45. During a wide-area search, every team member is equipped with a: (463) [4.3.9]
- A. tether line.
  - B. thermal imager.
  - C. backup SCBA cylinder.
  - D. high-capacity SCBA cylinder.
- \_\_\_\_\_ 46. A minimum of \_\_\_\_\_ firefighters are needed to perform VEIS if using a ladder. (464) [4.3.9]
- A. one
  - B. two
  - C. three
  - D. four
- \_\_\_\_\_ 47. The four steps involved in VEIS are: (465) [4.3.9]
- A. vent, exit, isolate, save.
  - B. vent, enter, isolate, search.
  - C. vent, enter, isolate, substitute.
  - D. victim location, evacuation, isolate, search.
- \_\_\_\_\_ 48. VEIS is only intended for: (465) [4.3.9]
- A. larger structural searches.
  - B. rooms in the interior of the structure.
  - C. rapid rescue of victims and the isolation of individual rooms.
  - D. rooms that are involved with the fire or show conditions of flashover.

- \_\_\_\_\_ 49. What is a rescuer's role in occupant self-evacuation? (465) [4.3.9]
- A. Treating injured victims
  - B. Keeping bystanders out of the safe haven area
  - C. Establishing a safe haven away from the structure
  - D. Moving victims to a protected location inside the structure
- \_\_\_\_\_ 50. In which location would sheltering-in-place likely be used instead of evacuation? (466) [4.3.9]
- A. Hospital
  - B. Daycare center
  - C. Open-air market
  - D. Low-rise apartment building
- \_\_\_\_\_ 51. Which type of carry or drag is commonly used for children, but is not practical for unconscious adults? (466) [4.3.9]
- A. Incline drag
  - B. Webbing drag
  - C. Extremities lift/carry
  - D. Cradle-in-arms lift/carry
- \_\_\_\_\_ 52. A "MAYDAY" is called when: (467) [4.2.4, 4.3.5]
- A. there is a partial roof collapse.
  - B. unconscious victims are located.
  - C. a firefighter is in immediate danger.
  - D. hazardous materials are found in a structure.
- \_\_\_\_\_ 53. If you think your life is in immediate danger, transmit the MAYDAY signal and then: (468) [4.2.4, 4.3.5]
- A. call the rapid intervention crew.
  - B. provide personnel accountability report.
  - C. activate your PASS device before communicating your situation to the IC.
  - D. communicate your situation to the IC before activating your PASS device.

- \_\_\_\_\_ 54. Which of the following actions should be taken immediately when MAYDAY is broadcast? (469) [4.2.4, 4.3.5]
- A. The MAYDAY crew is dispatched to locate the downed firefighter.
  - B. All radio traffic ceases and only traffic relating to the MAYDAY is allowed.
  - C. Personnel near the downed firefighter should proceed to assist with rescue.
  - D. All assigned units are directed to assist with searching for the firefighter who has broadcast the MAYDAY.
- \_\_\_\_\_ 55. If you are near the downed firefighter when a MAYDAY transmission is made: (469) [4.2.4, 4.3.5]
- A. exit the area immediately.
  - B. immediately ventilate the area.
  - C. immediately rush to assist with the rescue.
  - D. listen closely for your orders after the transmission and do not freelance.
- \_\_\_\_\_ 56. When any evacuation signal is given, all exiting crews must: (469) [4.2.4, 4.3.5]
- A. activate their personal alert safety system (PASS) devices.
  - B. proceed to a designated safe area outside the collapse zone.
  - C. confirm the evacuation order with the IC before exiting the structure.
  - D. ensure that all victims have been evacuated before leaving the structure.
- \_\_\_\_\_ 57. How does staying low to the floor improve survivability? (470) [4.2.4, 4.3.5]
- A. It allows you to exit a structure more quickly
  - B. It removes toxins such as carbon monoxide (CO)
  - C. Temperatures are cooler and air may be less contaminated
  - D. This places a barrier between you and the fire, allowing you more time to find an egress point

- \_\_\_\_\_ 58. Escaping to a safe haven is the best option when: (470) [4.2.4, 4.3.5]
- A. your low-pressure alarm sounds.
  - B. the primary search has been completed.
  - C. the rest of your team is in the hazard zone.
  - D. there is imminent threat of structural collapse.
- \_\_\_\_\_ 59. What is the best option when rapid fire development is about to occur? (470) [4.2.4, 4.3.5]
- A. Shelter in place
  - B. Escape to a safe haven
  - C. Remain in place and use the hoseline for protection
  - D. Advance to the seat of the fire to extinguish it before it grows
- \_\_\_\_\_ 60. Which coupling on a hoseline will indicate you are headed toward an egress point? (471) [4.2.4, 4.3.5]
- A. Male
  - B. Joint
  - C. Bypass
  - D. Female
- \_\_\_\_\_ 61. When you are seeking to escape and you locate a window, you should: (472) [4.2.4, 4.3.5]
- A. use an escape rope to descend from the window.
  - B. break the window glass using heavy furniture in the room.
  - C. break the glass and lower yourself to the ground head first.
  - D. ask Command if opening the window will make interior conditions worse.
- \_\_\_\_\_ 62. Why is breaching interior walls not a preferred method of escape? (472) [4.2.4, 4.3.5, 4.3.9]
- A. It inflicts too much damage on the structure.
  - B. It could cause possible harm to victims sheltering in the next room.
  - C. It requires specialized tools and requires responders to remove SCBA.
  - D. It requires strength, depletes air supply, and creates an additional flow path.

- \_\_\_\_\_ 63. What should you do if you become entangled while trying to evacuate a building? (473) [4.2.4, 4.3.5]
- A. Remove your SCBA and cut the wires
  - B. Contact the rapid intervention crew by radio
  - C. Wait calmly for another firefighter to find you
  - D. Broadcast a MAYDAY, then attempt to free yourself
- \_\_\_\_\_ 64. What is the purpose of a rapid intervention crew (RIC)? (473) [4.3.9, 4.3.10]
- A. Perform a primary search
  - B. Perform a secondary search
  - C. Rescue injured or trapped victims
  - D. Rescue injured or trapped firefighters
- \_\_\_\_\_ 65. Which acronym describes the mandatory tools carried by a rapid intervention crew? (473) [4.3.9]
- A. AWARE – Air, Water, A Radio, Extrication
  - B. AWAKE – Air, Water, Axe, K-tool, Extrication
  - C. PATH – PPE, Axe, Thermal imager, Flashlight
  - D. PART– PPE, Air monitoring equipment, Radio, Thermal imager
- \_\_\_\_\_ 66. While in a structure searching for a downed firefighter, the RIC should: (474) [4.3.9]
- A. start the search closest to the fire.
  - B. stop frequently and briefly remain silent.
  - C. open closed doors in order to prevent backdraft.
  - D. radio to Command as they head from one room to another.
- \_\_\_\_\_ 67. A tracking device set to search mode: (474) [4.3.9]
- A. is only activated when a PASS device fails.
  - B. displays the distance and direction toward another receiver.
  - C. will not transmit a signal through walls, floors, or other solid objects.
  - D. makes noise to alert rescuers to the downed firefighter's location.

- \_\_\_\_\_ 68. After locating a downed firefighter in an IDLH atmosphere, what is the RIC's priority? (474) [4.3.9]
- A. Extinguishing the fire
  - B. Rescuing other victims
  - C. Exiting the IDLH atmosphere
  - D. Stabilizing the firefighter's injuries
- \_\_\_\_\_ 69. When removing a firefighter with functioning SCBA from a hazardous location: (475) [4.3.9]
- A. connect the firefighter's facepiece to another SCBA.
  - B. reconnect the firefighter's facepiece to the SCBA tank.
  - C. move the firefighter carefully so as not to dislodge the mask.
  - D. remove the firefighter's facepiece and inspect it before continuing.