

FIRE ACADEMY

Candidate Preparation

Questions Pertaining to Probationary Firefighter Reading Assignments (Cycles 1-26)

Cycle 8

Choose the answer that is most correct

Chapter 16: Search #2

- 1) The _____ is the movement of heat and smoke from the higher pressure within the fire area towards the lower pressure areas accessible via doors, window openings and roof structures.
 - A) Heat release rate
 - B) Flow path
 - C) Ventilation
 - D) VEIS

- 2) The rate at which energy is generated by the burning of a fuel and oxygen mixture is called the _____.
 - A) Heat release rate
 - B) Flow path
 - C) Ventilation
 - D) VEIS

- 3) _____ is the approved tactic when entering a structure through an opening (door or window) to search an area for the location of the fire or to locate possible victims. The priority upon entering the area via the window is to close the door to that room or area in order to isolate that area.
 - A) Heat release rate
 - B) Flow path
 - C) Ventilation
 - D) VEIS

- 4) Ventilation is the controlled and coordinated removal of heat and smoke from a structure, replacing the escaping gases with fresh air. This exchange is bi-directional with heat and smoke exhausting at the _____ and air flowing in towards the fire at the _____.
 - A) Top, bottom
 - B) Bottom, top

- 5) Fires involving modern synthetic contents coupled with new building construction methods that contain the heat and smoke within the fire area, may quickly become a ventilation limited fire once a door is left open or other parts of the occupancy are ventilated allowing air flow into the fire area. These openings will provide enough air flow that may rapidly expand the fire condition and extension, causing conditions to become untenable in as little as _____ minute(s) after entry is made into the fire apartment or area.
- A) 1
 - B) 1 ½
 - C) 2
 - D) 2 ½
- 6) **True or False:** It is important for an engine company to realize that a properly positioned hoseline will contain the fire, possibly saving civilian lives and protecting firefighters and only in extreme cases should an engine company become involved in search and rescue without simultaneously stretching and positioning a hoseline.
- 7) A search for life that is rapid, thorough and systematic, can be influenced by the fire and may be made prior to the application of water is called a _____
- A) Primary
 - B) Secondary
 - C) Tertiary

Chapter 8: Collapse

- 1) A collapse is one of the most dangerous operations a firefighter will encounter. Which of the following collapse types has the greatest potential for secondary collapse?
- A) Supported lean-to
 - B) Cantilever collapse (unsupported lean-to)
 - C) A- frame collapse
 - D) Pancake collapse
 - E) V-shaped collapse
- 2) A _____ is a structure that supports another structural member in the same building, such as a bearing wall, a column or a girder.
- A) Primary structural member
 - B) Secondary structural member
 - C) Coping stone
 - D) Corbelling
- 3) What is a warning sign of collapse?
- A) Accumulation of snow or rain on the roof of structure
 - B) Backdraft or smoke explosion
 - C) Excavation
 - D) Creaking sounds, rumbling

Chapter 16: Search #2

- 1) The controlled and coordinated ventilation effort which should coincide with the Engine Company extinguishment of the fire is a tactic defined as?
 - A) Ventilation limited fire
 - B) Ventilation profile
 - C) Ventilation for extinguishment
 - D) Ventilation for search
- 2) The controlled and coordinated ventilation effort performed to facilitate the movement of a firefighter into an area to conduct a search for victims is a tactic defined as?
 - A) Ventilation limited fire
 - B) Ventilation profile
 - C) Ventilation for extinguishment
 - D) Ventilation for search
- 3) A fire in which the heat release rate and fire growth are regulated by the available oxygen within the space is called a _____.
 - A) Ventilation limited fire
 - B) Ventilation profile
 - C) Ventilation for extinguishment
 - D) Ventilation for search
- 4) The appearance of the fire building's ventilation points showing the flow paths of heat and smoke out of the structure as well as any air movement into the structure is called the _____.
 - A) Ventilation limited fire
 - B) Ventilation profile
 - C) Ventilation for extinguishment
 - D) Ventilation for search
- 5) Conducting a search in the modern fire environment has added many challenges to the fire service. The increased use and amount of synthetic contents found in all buildings is one challenge presented due to its heat release rate (HHR). Which of the following is correct as it pertains to modern day firefighting tactics?
 - A) Synthetic materials give off heat less quickly than ordinary combustibles.
 - B) Fires today produce thick black smoke which greatly reduces the searcher's visibility.
 - C) A slower change of the fire environment takes place in fires with synthetic contents.
 - D) Bunker Gear is totally encapsulating and is fireproof.
- 6) The tool that has taken on a great importance when conducting searches due to thick black smoke and a lack of visibility is the _____?
 - A) Thermal Imaging Camera
 - B) Pak- Tracker
 - C) KO Curtain
 - D) Sure search door markers

- 7) Today's fire conditions lower the survival threshold of civilians as well as decreasing the amount of time needed to safely perform a search without an operating hoseline in place. While searching in a fire environment, how many of the following tactics should members be constantly aware of, for reasons of safety? (more than one)
- A) Status of the hoselines
 - B) Location of the hoselines
 - C) Operation of the hoselines
 - D) Number of hoselines stretched
- 8) Searching members must understand that the degree of aggressiveness incorporated into a search for life must be dependent upon how many of the following factors? (more than one)
- A) The structural stability of the building
 - B) The ventilation profile
 - C) The report of a life hazard
 - D) The status of the water supply
- 9) Members must include the building configuration as part of their size-up. The benefits gained by observing construction features of the fire building may give members an idea of the floor layout inside a residential building. Prior to reaching the fire floor, knowledge can also be gained from conducting a survey on the floor below. How many of the following can be learned by observing features on the floor below the fire? (more than one correct)
- A) Determine the interior hallway layout.
 - B) Determine number of victims on the fire floor.
 - C) Determine the apartment numbering system.
 - D) Determine the floor plan of the fire apartment.
 - E) Determine closest means of access to the fire apartment.
- 10) It is critically important to take into consideration the effects of the wind direction and velocity on fire conditions, especially when windows are open or failed. Direct or gusting wind may suddenly increase the fire conditions and fire growth within the structure. Who should members of the outside team report wind conditions and its effect on the fire and smoke conditions to?
- A) Ladder Company Officer
 - B) Engine Company Officer
 - C) Ladder Company Officer and the Incident commander
 - D) Engine Company Officer and the Incident commander

Matching (Questions 11-15)

In the following occupancies, match the building type with the possibility of occupants present during the nighttime. This part of your size-up will help you determine the possibility and/or location of victims as you consider your search tactics. (more than 1 may be correct)

- A) Large number of sleeping occupants
- B) Occupants padlocked in to provide security at night
- C) Computer personnel present for 24 hours
- D) Occupants present due to building being converted to a residential
- E) Cleaning personnel working after normal business hours

11) Commercial buildings _____

12) Commercial loft buildings _____

13) Multiple dwellings _____

14) Office buildings _____

15) Taxpayers _____

16) **True/False** The most important tactic for an engine company to possibly save civilian lives and protect firefighters who are searching both the fire floor and floors above is to properly position a hoseline to contain the fire.

17) **True/False** Only in extreme cases should an engine company become involved in search and rescue without simultaneously stretching and positioning a hoseline.

18) The company that is responsible for the primary search of the fire floor or fire area is the?

- A) 1st to arrive engine company
- B) 2nd to arrive engine company
- C) 1st to arrive ladder company
- D) 2nd to arrive ladder company

19) Usually what is the responsibility of the 2nd arriving ladder company?

- A) Locate the fire area.
- B) Control the door to the apartment or fire area, and any other ventilation points.
- C) Communicate the fire location to the Engine officer and the Incident commander.
- D) Determine if conditions are tenable to support life (conduct a search for victims)
- E) Primary search of the floors above.

- 20) The search for life in the areas adjacent to or above the fire area or fire floor should start immediately upon entering the area, followed by searching for the extension of fire. Any extension should be immediately reported to?
- A) Incident commander
 - B) 1st ladder company officer
 - C) 1st engine company officer
 - D) 2nd engine company officer

Chapter 15: Ladder to the Rear of Brownstone

- 1) In a Brownstone type building, the best way to transport a ladder to the rear is through the parlor floor of an adjoining brownstone with the _____ facing the rear of the building.
- A) Tip
 - B) Butt
- 2) It is recommended, in order to reach all floors, that the laddering of the rear of Brownstones be accomplished with _____ ladders.
- A) Extension
 - B) Straight

Chapter 12: Basic Standpipe Operations

- 1) How many of the following places might a standpipe be encountered? (more than one correct)
- A) Hospitals
 - B) Warehouses
 - C) Terminals and industrial buildings
 - D) Theaters, stadiums and arenas
 - E) Tunnels
 - F) Piers and wharves
 - G) Limited access highways
- 2) Which is true regarding 1 ½" diameter occupant-use hose?
- A) It should never be used.
 - B) It can be used by ladder company operating with an engine company when life is in immediate peril.
 - C) It can only be used by a rescue company operating without an engine company
 - D) It can be used when a ladder company or rescue company is operating without an engine company when life is in immediate peril and FDNY hoseline is unavailable.

- 3) When a building is equipped with both a standpipe system and automatic sprinklers, the first supply line should supply _____ system.
- A) Standpipe
 - B) Sprinkler
 - C) Supply both simultaneously
- 4) What color is a combination sprinkler/standpipe Siamese connection?
- A) Green
 - B) Aluminum
 - C) Red
 - D) Yellow
- 5) A Blue disc is found on the FDC what does this tell you about the standpipe system?
- A) System is fully operational
 - B) System is fully out of service
 - C) System is partially out of service
 - D) System is dry
- 6) It is the responsibility of the Engine Officer to select the floor outlet to be used. Primary consideration should be given to using an outlet on the _____.
- A) Same floor as the fire
 - B) Floor immediately below the fire
 - C) Floor two floor below the fire
 - D) Floor immediately above the fire
- 7) In rare cases, using the floor outlet on the same floor as the fire may be permissible due to unusual building characteristics. Which is a requirement to use a floor outlet on the same floor as the fire?
- A) Approval from the Battalion Commander
 - B) Stretching from the fire floor allows the fire apartment to be reached in 4 lengths of hose
 - C) A CIDS entry is made
 - D) Enclosed balcony is present
- 8) **True or False:** If a floor outlet has a Pressure Reducing Device (PRD) attached it must be removed so sufficient pressure can be achieved.
- 9) **True or False:** If a floor outlet has a Pressure Reducing Valve (PRV) attached it should be removed, if possible.
- 10) For the most common standpipe hose stretches, the control firefighter should supply ____ psi for a residential fire using 3 lengths with a 2" lead length.
- A) 60
 - B) 70
 - C) 80
 - D) 90

- 11) For the most common standpipe hose stretches, the control firefighter should supply ____ psi for a commercial or residential fire using 3 lengths with a 2 ½" lead length.
- A) 60
 - B) 70
 - C) 80
 - D) 90
- 12) If additional lengths of hose are required for a standpipe stretch, the control firefighter should supply an additional ____ psi for every length of 2 ½" hose added. If the hoseline will be stretched from further than 1 floor away, the control firefighter should supply an additional ____ psi for every additional floor of elevation needed
- A) 5, 5
 - B) 10, 10
 - C) 5, 10
 - D) 10, 5
- 13) When should the Control Firefighter set the pressure at the outlet?
- A) When water is flowing at the nozzle
 - B) When the nozzle is shut
 - C) When the gauge is reading static pressure
 - D) When the nozzle firefighter performs a "short bleed"
- 14) Which piece of equipment is a standpipe kit required to have?
- A) Spare operating wheels (to be used if wheel is missing)
 - B) Mallet (to help remove tightened caps)
 - C) Vise grips (to be used as an alternative to the pipe wrench)
 - D) Single gate (to ease operation of difficult to operate outlets)
 - E) Chocks
- 15) **True or False:** The High-Rise Nozzle (HRN) may be supplied by a 2" or 2 ½" hoseline.

Cycle 8 Answer Key

Chapter 16: Search #2

1. B (CH16) pg. 99
2. A (CH16) pg. 99
3. D (CH16) pg. 99
4. A (CH16) pg. 99
5. B (CH16 sec 2.2) pg. 101
6. True (CH16 sec 4.11) pg. 103
7. A (CH16 sec 6.1) pg. 104

Chapter 8: Collapse

1. B (CH8 Cantilever Picture) pg. 7
2. A (CH8) pg. 6
3. D (CH8) pg. 6

Chapter 16: Search

1. C (CH16) pg. 99
2. D (CH16) pg. 99
3. A (CH16) pg. 99
4. B (CH16) pg. 99
5. B (CH16 sec 2.1) pg. 101
6. A (CH16 sec 2.1) pg. 101
7. All (CH16 sec 2.3) pg. 101
8. All (CH16 sec 4.3) pg. 102
9. A, C, D, E (CH16 sec 4.5) pg. 102
10. C (CH16 sec 4.6) pg. 102 (The answer is C because outside members are in a ladder company and report directly to their officer and, for an important situation such as this one, the IC.)
11. E (CH16 sec 4.7) pg. 102
12. D
13. A
14. C & E
15. B
16. True (CH16 sec 4.11) pg. 103
17. True (CH16 sec 4.11.Note) pg. 103
18. C (CH16 sec 6.2) pg. 104
19. E (CH16 sec 6.3) pg. 104
20. A (CH16 sec 6.3) pg. 104

Chapter 15: Portable Ladders

1. B (CH15 sec 10.2.2.D.1.b NOTE) pg. 17
2. A (CH15 sec 10.2.2.D.2) pg. 18

Chapter 12: Basic Standpipe Operations

1. All (Ch12 sec 1.1) pg. 93
2. D (Ch12 sec 1.3) pg. 93
3. A (Ch12 sec3.3) pg. 95
4. D (Ch12 sec 3.7.2) pg. 96
5. C (Ch12 sec 3.7.3) pg. 96
6. B (Ch12 sec 4.2 thru 4.4) pg. 98
7. C (Ch12 sec 4.4) pg. 99
8. False (Ch12 sec 4.8) pg. 99
9. False (Ch12 sec 4.9) pg. 99
10. C (Ch12 sec 5.3.1) pg. 100
11. B (Ch12 sec 5.3.2) pg. 100
12. A (Ch12 sec 5.4.5 & 5.4.6) pg. 101
13. A (Ch12 sec 5.5) pg. 101
14. E (Ch12 sec 6.2 & 6.3) pg. 102
15. True (Ch12 Add 2 sec 4.3) pg. 120