

Klamath County Fire District 4

Entry Level Firefighter Unit 6- Horizontal Ventilation

Section/Activity	Pages
Horizontal Ventilation	570-572
Forced Ventilation	573-578

- _____ 1. Which of the following types of structures does NOT lend itself well to the application of horizontal ventilation? (570)
- A. A building with a daylight basement
 - B. A building in which the fire has reached the attic area
 - C. An involved floor of a multistoried structure below the top floor
 - D. Limited openings between the attack team and the upper opening
- _____ 2. All of the following are ways by which horizontal extension occurs inside a structure EXCEPT: (570)
- A. through walls by convected air currents.
 - B. in all directions by explosions or flash fires.
 - C. through roof openings by convected air currents.
 - D. through walls by conduction of heat through beams.
- _____ 3. Which of the following weather phenomena has the most potential influence on horizontal ventilation? (570)
- A. Wind
 - B. Drought
 - C. Lightning
 - D. Precipitation
- _____ 4. Which of the following statements about horizontal ventilation is LEAST accurate? (571)
- A. Horizontal ventilation may block the escape of occupants.
 - B. Because horizontal ventilation does not release heat and smoke directly above the fire, some routing is necessary.
 - C. Because horizontal ventilation does not release heat and smoke directly above the fire, routing is dangerous and uncalled for.
 - D. The routes by which the smoke and heated gases would travel to exit the building may be the same corridors and passageways that occupants need for evacuation.

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- _____ 5. Which of the following statements about upsetting horizontal ventilation is LEAST accurate? (572)
- A. Firefighters should take advantage of air currents established by horizontal ventilation.
 - B. Firefighters should create a ventilation exit opening on the leeward side of a burning building as a last resort.
 - C. If firefighters block established currents, the positive effects of horizontal ventilation may be eliminated.
 - D. If firefighters open a door or window on the windward side of a burning building prior to first creating a ventilation exit opening on the leeward side, the building may become pressurized.
- _____ 6. Which of the following is NOT an advantage of forced ventilation? (573)
- A. It reduces smoke damage.
 - B. It promotes good public relations.
 - C. It ensures more positive control of air flow.
 - D. It can be powered by a wide array of sources.
- _____ 7. Which of the following statements BEST describes negative-pressure ventilation? (574)
- A. Fans pull air from the outside of the building to the interior.
 - B. Fans work best if they exhaust in the opposite direction as the prevailing wind.
 - C. It uses a high-volume fan to create a slightly higher pressure inside a building than that outside.
 - D. It uses fans to develop artificial circulation or enhance natural ventilation to expel smoke from a structure.
- _____ 8. Which of the following statements about churning is LEAST accurate? (574)
- A. Churning reduces ventilation efficiency.
 - B. There is no effective way to prevent churning.
 - C. Churning is caused when air recirculates back into the building.
 - D. Atmospheric pressure pushes air back through the open spaces in the doorway or window and pulls the smoke back into the room.

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- _____ 9. Which of the following statements BEST describes positive-pressure ventilation? (575)
- A. Fans pull air from the inside of the building to the exterior.
 - B. It uses a high-volume fan to create a slightly higher pressure inside a building than that outside.
 - C. It uses a high-volume fan to create a slightly lower pressure inside a building than that outside.
 - D. It uses fans to develop artificial circulation or enhance natural ventilation to expel smoke from a structure.
- _____ 10. The location where positive-pressure ventilation is set up is called the: (575)
- A. exit point.
 - B. PPV zone.
 - C. entry point.
 - D. ventilation duct.
- _____ 11. When using positive-pressure ventilation to ventilate a multistory building, it is best to apply positive pressure at the ____ point through the use of one or more blowers. (576)
- A. exit
 - B. lowest
 - C. highest
 - D. midway
- _____ 12. To ensure an effective positive-pressure ventilation operation, all of the following actions can be taken EXCEPT: (577)
- A. taking advantage of existing wind conditions.
 - B. keeping the size of the exit opening in proportion to the entry opening.
 - C. avoiding creating horizontal openings by breaking glass or removing doors.
 - D. making certain that the cone of air from the blower only partially covers the entry opening.

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- _____ 13. Which of the following is NOT an advantage of positive-pressure ventilation over negative-pressure ventilation? (577-578)
- A. The placement of fans does not interfere with ingress or egress.
 - B. Removal of smoke and heat from a structure or vessel is more efficient.
 - C. Hidden fires may not be accelerated and spread throughout the building.
 - D. Firefighters can set up positive-pressure ventilation without entering the smoke-filled environment.
- _____ 14. Which of the following statements about hydraulic ventilation is LEAST accurate? (578)
- A. It is used to clear the room or building of smoke before a fire has been controlled.
 - B. It can be used to clear the building of heat and gases after a fire has been controlled.
 - C. It may be used in situations where other types of forced ventilation are unavailable.
 - D. It uses the air movement created by a fog stream to help draw products of combustion out of the structure.
- _____ 15. To perform hydraulic ventilation, a fog stream is set on a wide fog pattern that will cover ___ percent of the window or door opening from which the smoke will be pushed out. (578)
- A. 55 to 60
 - B. 65 to 70
 - C. 75 to 80
 - D. 85 to 90
- _____ 16. Which of the following is a disadvantage of hydraulic ventilation? (578)
- A. It can only be used in freezing temperatures.
 - B. There may be a decrease in the amount of water damage within the structure.
 - C. It can only be used after positive-pressure ventilation has been used.
 - D. The operation may have to be interrupted when the nozzle team has to leave the area to replenish their air supply.