

# Chapter 7 Test

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

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

**Objective 1:**  
**Describe means of egress systems.**

- \_\_\_\_\_ 1. Which of the following is MOST likely to be a factor in means of egress issues for occupants? (241)
- A. Common areas with multiple exits
  - B. Upper level outdoor decks or patios
  - C. Improperly designed or marked exits
  - D. Buildings that have remained unchanged
- \_\_\_\_\_ 2. The basic elements of a means of egress are: (242)
- A. exit opening, exit pathway.
  - B. exit access, exit, exit discharge.
  - C. primary and secondary exit pathways.
  - D. exit input, exit output, secondary exit.
- \_\_\_\_\_ 3. The means of egress must terminate in a public way or a(an): (244)
- A. area of refuge.
  - B. outdoor patio or deck.
  - C. lower level common area.
  - D. storm shelter or safe room.
- \_\_\_\_\_ 4. Which of the following would MOST likely be an appropriate area of refuge? (245)
- A. Rated stairwell
  - B. Enclosed bathroom
  - C. Outdoor patio or deck
  - D. Lower level common area

- \_\_\_\_\_ 5. Which regulation requires areas of refuge in some occupancies as a way to protect people who are mobility impaired? (245)
- A. Access for Individuals Act
  - B. Common Areas Access Act
  - C. Americans with Disabilities Act
  - D. Federal Public Use Building Statute
- \_\_\_\_\_ 6. If they are to be useful during an emergency, all of the elements of a means of egress must be: (246)
- A. painted with reflective paint.
  - B. at least 20% larger than code requirements.
  - C. constructed of the highest level of fire resistance.
  - D. free from obstructions and combustible materials.
- \_\_\_\_\_ 7. Which of the following leads from an occupied portion of a building or structure to the exit? (246)
- A. Exit access
  - B. Primary exit
  - C. Tertiary exit
  - D. Exit discharge
- \_\_\_\_\_ 8. Which of the following is a protected path consisting of exit components constructed of approved fire-resistance-rated assemblies? (246)
- A. Exit
  - B. Exit access
  - C. Exit pathway
  - D. Exit discharge
- \_\_\_\_\_ 9. Which of the following statements about exit passageways is MOST accurate? (247)
- A. They need not be constructed of fire-resistant-rated material.
  - B. They can be constructed of lower fire-resistant-rated material than the exit stairs.
  - C. They must be constructed of higher fire-resistant-rated material than the exit stairs.
  - D. They must be constructed of the same fire-resistant-rated material as the exit stairs.

- \_\_\_\_\_ 10. An exit passageway must be wide enough to accommodate: (248)
- A. all building occupants.
  - B. the total capacity of all exits that discharge through it.
  - C. 75% of the total capacity of all exits that discharge through it.
  - D. 90% of the total capacity of all exits that discharge through it.
- \_\_\_\_\_ 11. Horizontal exits may be substituted for other exits if they do not compose more than \_\_\_\_\_ percent of the total exit capacity of the building. (248)
- A. 25
  - B. 35
  - C. 50
  - D. 80
- \_\_\_\_\_ 12. Which type of exit consists of a means of egress from one building to an area of refuge in another building on approximately the same level? (248)
- A. Vertical exit
  - B. Horizontal exit
  - C. Exit passageway
  - D. Smokeproof enclosure
- \_\_\_\_\_ 13. Horizontal exits require fire walls or fire-barrier walls with at least: (248)
- A. a 1-hour fire-resistance rating.
  - B. a 2-hour fire-resistance rating.
  - C. the same rating as interior finishes.
  - D. the same rating as areas of refuge.
- \_\_\_\_\_ 14. Which of the following are stairways that are designed to limit the penetration of smoke, heat, and toxic gases into the stairway? (249)
- A. Vertical exit
  - B. Horizontal exit
  - C. Exit passageway
  - D. Smokeproof enclosure

- \_\_\_\_\_ 15. Which of the following is a way to make the stair enclosure smokeproof? (249)
- A. Pressurize it
  - B. Use all fire-retardant materials
  - C. Limit use except in emergency situations
  - D. Use double doors at every entrance and exit
- \_\_\_\_\_ 16. Which of the following is the BEST example of an exit discharge? (250)
- A. Convenience stairs that lead to a large common area
  - B. Any window opening that allows exit from the building
  - C. Upper level patio doors that lead to small outdoor balconies
  - D. Privately owned drive or alley that connects the exit to a public way
- \_\_\_\_\_ 17. Which of the following is an important life safety function of doors? (251)
- A. Allow the fire to be confined to one area
  - B. Allow rooms with doors to be used as areas of refuge
  - C. Separate multi-use occupancy hazards from areas without hazards
  - D. Separate occupants from the movement of fire, smoke, and other toxic gases
- \_\_\_\_\_ 18. The exit requirements for a building take on a higher level of significance and additional exiting system requirements must be met: (253)
- A. when the building is older construction.
  - B. when the building is often left unoccupied.
  - C. if 25 or more people are in a room or occupancy.
  - D. if 50 or more people are in a room or occupancy.
- \_\_\_\_\_ 19. Which of the following locking hardware should be able to be operated by occupants setting the door in motion by applying a force of no more than 30 pounds (15 N)? (254)
- A. Bolt locks
  - B. Panic hardware
  - C. Access-controlled egress
  - D. Electromagnetically locked

- \_\_\_\_\_ 20. Which of the following would MOST likely be an acceptable bolt lock? (254)
- A. Manually operated flush bolts
  - B. Manually operated surface bolts
  - C. Thumb-turn bolts that operate independently of the door latch
  - D. Deadbolt locks that operate with the action of the latch and do not require keys, special tools, or knowledge to operate
- \_\_\_\_\_ 21. Which type of locking hardware requires that the occupant use a security card or enter a code to gain entrance? (254)
- A. Bolt locks
  - B. Panic hardware
  - C. Access-controlled egress
  - D. Electromagnetically locked
- \_\_\_\_\_ 22. Which type of locking hardware must include a sensor on the egress side that detects an occupant approaching? (255)
- A. Bolt locks
  - B. Panic hardware
  - C. Access-controlled egress
  - D. Electromagnetically locked
- \_\_\_\_\_ 23. Which type of locking hardware activates an audible signal when doors are opened? (255)
- A. Bolt locks
  - B. Panic hardware
  - C. Delayed egress
  - D. Electromagnetically locked
- \_\_\_\_\_ 24. Which type of locking hardware must have a built-in switch that directly supplies power to the lock? (255)
- A. Bolt locks
  - B. Panic hardware
  - C. Delayed egress
  - D. Electromagnetically locked
- \_\_\_\_\_ 25. Which of the following will automatically unlock many types of locking hardware? (255)
- A. Loss of power
  - B. Presence of fire
  - C. Presence of smoke
  - D. Building panic buttons

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- \_\_\_\_\_ 26. Which of the following is MOST likely to have special locking system? (256)
- A. Covered malls
  - B. Educational facilities
  - C. Health care facilities
  - D. Multiple-use occupancies
- \_\_\_\_\_ 27. Which of the following are usually held open by magnetic devices and close automatically to provide a smoke or fire barrier in a fire-barrier wall? (256)
- A. Swinging doors
  - B. Self-closing doors
  - C. Class A fire doors
  - D. Dual-purpose doors
- \_\_\_\_\_ 28. Where two or more exits are required, no more than \_\_\_\_\_ of the exits can be equipped with security grilles. (256)
- A. one-fourth
  - B. one-third
  - C. one-half
  - D. three-quarters
- \_\_\_\_\_ 29. Which of the following should an inspector look for in older buildings? (256)
- A. Mismatched fixtures on the walls
  - B. Color schemes that do not match the rest of the building
  - C. Concealed penetrations in the walls above decorative-type ceilings
  - D. Rough areas or worn edges around walls and around wainscoting
- \_\_\_\_\_ 30. A ceiling that is part of a means of egress: (257)
- A. does not need to have a fire-resistance rating.
  - B. can have a lower fire-resistance rating than the walls.
  - C. must have the same fire-resistance rating as the walls.
  - D. must have a greater fire-resistance rating than the walls.

- \_\_\_\_\_ 31. Why is the type of floor covering a frequent source of concern for inspectors? (257)
- A. Floor coverings wear out quickly
  - B. They do not fall under any codes
  - C. Unapproved materials are often used during remodeling
  - D. Fire and life safety hazards are often concealed under floor covering
- \_\_\_\_\_ 32. What must be provided when flights of stairs are greater than 12 feet (3.5 m) high? (258)
- A. Landings
  - B. Larger treads
  - C. Additional handrails
  - D. Increased reinforcement on stair treads
- \_\_\_\_\_ 33. In certain occupancies, when may open stairs be used as a part of the means of egress? (258)
- A. When the building has been grandfathered
  - B. When the building occupancy is less than 50
  - C. When the building occupancy is less than 100
  - D. When the building has an automatic sprinkler system
- \_\_\_\_\_ 34. Which of the following statements about exit stairways is MOST accurate? (258)
- A. They can be used for temporary storage of items such as trash.
  - B. They can be used for minimal long-term storage of boxed items.
  - C. They cannot be used for any purposes other than as a means of egress.
  - D. Stairway egress cannot be impeded by more than 10% with any type of items.
- \_\_\_\_\_ 35. Which regulation made ramps more common in occupancies in the United States? (260)
- A. Access America Act of 1995
  - B. Federal Fair Labor Act of 2000
  - C. Public Use Occupancy Statute of 2005
  - D. Americans with Disabilities Act of 1990

- \_\_\_\_\_ 36. Which of the following statements about fire escape stairs and new construction is MOST accurate? (260)
- A. They may not be used as any part of a means of egress.
  - B. They may constitute only half of the required means of egress.
  - C. They must meet stricter codes to be used as a means of egress.
  - D. They may constitute only one-third of the required means of egress.
- \_\_\_\_\_ 37. When codes require exit illumination, the illumination must be: (262)
- A. continuous during periods of occupancy.
  - B. continuous whether the building is occupied or unoccupied.
  - C. powered by at least two separate continuous power sources.
  - D. powered such that no single lighting unit will fail during occupancy.
- \_\_\_\_\_ 38. Emergency lighting is designed to provide illumination: (263)
- A. at all times.
  - B. when normal power is lost.
  - C. concurrent with any exit illumination.
  - D. during periods of peak electrical usage.
- \_\_\_\_\_ 39. Illuminated exit signs must be positioned so that no point in the exit access is more than: (263)
- A. 50 feet (15 m) from the nearest visible sign.
  - B. 100 feet (30 m) from the nearest visible sign.
  - C. 150 feet (45 m) from the nearest visible sign.
  - D. 200 feet (60 m) from the nearest visible sign.
- \_\_\_\_\_ 40. The letters on exit signs must be at least: (263)
- A. 4 inches (100 mm) high.
  - B. 6 inches (150 mm) high.
  - C. 10 inches (250 mm) high.
  - D. 12 inches (300 mm) high.
- \_\_\_\_\_ 41. How often should the auxiliary power supply and emergency lighting system be tested? (265)
- A. Weekly and annually
  - B. Monthly and annually
  - C. Quarterly and annually
  - D. Bi-annually and annually

**Objective 2:**  
**Explain the way to calculate occupant loads for a single-use occupancy.**

- \_\_\_\_\_ 42. Which of the following is the BEST definition for occupant load? (265)
- A. The maximum occupancy of the building plus 10%
  - B. The maximum occupancy of the building plus 20%
  - C. The total number of persons that can comfortably congregate in a building
  - D. The total number of persons for which the means of egress of a building or portion thereof is designed
- \_\_\_\_\_ 43. The occupant load for a building or room is established: (265)
- A. once the building is in use.
  - B. during the plans review process.
  - C. upon initial use and revised annually.
  - D. based on insurance rates and reviews.
- \_\_\_\_\_ 44. What information is required to determine occupant load? (266)
- A. Total weight of the live load
  - B. Total weight of the dead load
  - C. Minimum width of each means of egress
  - D. Types of interior décor used in the occupancy
- \_\_\_\_\_ 45. Which of the following is the formula for determining the occupant load of a structure, room, or area? (266)
- A. Occupant Load = Net Floor Area x Area per Person
  - B. Occupant Load = Net Floor Area ÷ Area per Person
  - C. Occupant Load = Gross Floor Area ÷ Net Floor Area
  - D. Occupant Load = Gross Floor Area x Area per Person