

Recruitment and Diversity Initiative

Unit

Firefighter Test Preparation

Week 3

Class 3

Session 3

Answer Key

Homework Questions

# Homework Answers

## *Memorization*

- 1) (A) Room 1 has no fire-protective device of any kind and has no independent exit to the outside. Room 6 is not much better off, but at least it has a heat detector. Room 4 has a fire escape but no internal protective device. Room 8 has a fire escape.
- 2) (C) Room 7 has automatic sprinklers, a heat and smoke detector, a fire extinguisher, and a fire escape. Room 2 has only automatic sprinkler and Room 5 has only a heat and smoke detector. Room 8 has a fire escape.
- 3) (B) Fire hoses are only in the hallway.
- 4) (A) Room 2 has no access to a fire escape. Rooms 3 and 8 have fire escapes, and Room 5 has a door connecting it with Room 7, which has a fire escape.
- 5) (D) Use and storage of cleaning solvents and woodworking are activities that can pose fire hazards. The usual activities in office and accessory showrooms do not present fire hazards. The nature of the business in the other areas is unspecified.
- 6) (D) Room 1 is not connected to a fire escape, so its occupants would have to go into the hall to escape the fire. Once in the hall, the quickest way out would be via the nearest (The South) stairway. Entering Room 3 to go out the window and down the fire escape would be slower and more cumbersome. In addition, Room 3 is the next Room to become involved in the fire. Elevators should be avoided in a fire situation.
- 7) (B) There is a wastebasket on fire in Room 4.
- 8) (C) There is a fire alarm box topped by a bell in the hall next to the south staircase. The device in Room 3 is a fire extinguisher, not an alarm.
- 9) (A) Room 1 is full of half partitions.
- 10) (C) Be sure to count the windows connected to the fire escapes. There are 18 windows in all.

- 11) With a parade coming down Main Street, it would be difficult to maneuver fire trucks and hoses on either side of the parade route. The hydrant at choice (C) is closer than the one at (D). A & B are incorrect because it would be difficult to maneuver fire trucks and hoses on either side of the parade route.
- 12) (B) Certainly the route straight down Banon Street is the most direct, but remember the parade. Under the special circumstances of the day, the best route is to skirt the parade entirely. The parade has cleared Clark Boulevard and the detour around the parade route is not very far.
- 13) (A) Look at the time of day. Clark Boulevard is clogged with workers on their way home and should be avoided if at all possible. Choice (D) is acceptable, but (A) is faster.
- 14) (D) Wind from the southeast is blowing toward the northwest from the YMCA.
- 15) (A) The firebox on Main Street between Clark Boulevard and Hiram Road is between the Ice Cream Shop and the Central Bank. Direct vision from this box to the office buildings is blocked completely by the Elegant Apartments. A person at this location is unlikely to be aware of a fire at either office building.
- 16) (C) The firefighter headed east on Barton, making the second left onto Main Street. He went one block, then turned left (west) onto Hiram Road. After one block, he turned right (north) onto Bell Road, right again (east) onto Clark Boulevard and right once more (southeast) onto Main Street. At the next intersection, he turned right onto Hiram Road, then right, placing him on Bell Road (north), the side entrance to the Embassy Hotel.
- 17) (B) There is no fire alarm box on this block, it is quite far from the nearest box on the next block and not close to the firehouse. The block in choice (A) also has no box, b, is closer to the nearest box and the firehouse.
- 18) (B) Fire, heat, and smoke will rise rapidly up the Open staircase from the lobby and fill the halls of the floors above. Tenants being evacuated should travel the shortest possible distances in the halls. The fire stairs are close and safe because they are enclosed. Elevators are never safe in a fire. Further, since the fire is in the lobby, patrons should be kept away from the lobby.
- 19) (A) The reasoning is the same as in Question 13- This tenant will reach fresh air and safety most quickly and with least exposure to smoke by running to the balcony for rescue from outside.
- 20) (D) As we said, the elevator and open staircase present hazards to all people, firefighters as well as civilians. The safety enclosed fire stair is a much quicker and safer route by which to carry hose to the upper floor.

21) (B) is the correct answer because it shows the same scene at the same time as the original drawing given. (A) is incorrect because the raft being pulled is still in the water. (C) is incorrect because there are flames on the barge whereas in the original scene there are no flames on the barge. (D) is incorrect because it's showing you a side view.

22) (B) is correct. (A) is incorrect because of the direction of the smoke from the smokestack. (C) is incorrect because of the additional structure located on the barge. (D) is incorrect because the tug boat does not connect with the barge.

23) (A) is correct. (B) is incorrect because the raft is on the wrong side of the yacht. (C) is incorrect because in the original picture, one is throwing a lifesaver from the barge. (D) is incorrect because there is no fire on the yacht.

24) (B) is the correct answer. (A & C) are incorrect because the nose of the plane is above the water. (D) is incorrect because it shows high tides where as in the original it shows low tides.

25) (C) is the correct answer. (A) is incorrect because the rescue boat is approaching the plane from the rear. (B) is incorrect because the flames are being blown in the opposite direction. (D) is incorrect because the rescue is fleeing the scene.

26) (D) is the correct answer. (A) is incorrect because there is no ladder extending from the plane. (B) is incorrect because the tail section of the plane differs from the original plane. (C) is incorrect because there is only one ambulance in the picture, not two.

27) (A) is the correct answer: this is a precise mirror of the original drawing. In (B) the cat has moved to the desk. In (C) the word ANTIQUES appears as read from the outside instead of reversed from within. In (D) a large vase is missing.

28) (C) is the answer. This is the window as seen from 17 feet above the street. In (A) the chair is on the wrong side of the desk. In (B) flowers have suddenly appeared in the vase. In (D) there is a different desk.

29) (B) is the answer. This is the view from above. In (A) a new lamp has appeared. In (C) certain items have been removed from the window of the store. In (D) the chair has been knocked over.

30) (C) The last sentence states that part of the lack of relationship between cost of running a Fire department and dollar losses in fires is due to inefficiencies in the use of fire department funds.

31) (B) The paragraph makes it clear that many factors affect the "unadjusted loss per 51000" figure. Comparisons to the fire departments of different cities must allow for these other factors.

32) (D) The "loss per \$1000" figure is based upon the total value of property in the city.

33) (B) The paragraph simply states that spending more on the fire department does not guarantee lower total property loss. It does *not*, however, state that spending less leads to greater losses.

34) (D) The third from the last sentence of the first paragraph states that where no valve is visible, the firefighters should break the lock to the cylinder enclosure.

35) (A) The second sentence of the second paragraph states that these tank valves always turn to the right.

36) (B) This information is given in the next to last sentence.

37) (B) See the fourth sentence of the second paragraph.

38) (B) The second sentence tells us that the shut-off valve that is placed inside a building for the convenience of the user does not satisfy the emergency shut-off requirements.

39) (C) If the shut off valve cannot be closed, flattening the supply line tubing can shut off the supply of gas.

40) (C) See the first sentence.

41) (A) To calculate the number of people in the others group last year, you first must find the number of Captains last year. Since the increase from last year to this year on the Captains was 107, subtract 107 from 433 to determine the number of Captains last year. By adding together the number of Firefighters, Lieutenants and Captains and subtracting that sum from last year's total, we find that the number of others last year was 462. 462 is closest to 450, so the answer to the question is (A).

42) (C) To find percent of change, find the difference between the numbers and divide that difference by the original number:  $107 / 326 = 33\%$ . Try the others and you will find that the Captains, by far had the greatest percentage increase.

- 43) (B) There is 9,744 firefighters and 2,355 people of all other ranks. This constitutes a ratio of approximately 4:1.
- 44) (B) In firefighting time is crucial. If a fire alarm box can be found at once, no time is lost in sounding the alarm.
- 45) (D) Obviously, the more information available to firefighter, and the less time they need to spend gathering information, the more quickly they can extinguish the fire.
- 46) (D) The need for greater length of hose is less serious than the problem of reaching the site of the fire or in gaining access to the building.
- 47) (D) Sending in the alarm is the first priority, which the other pedestrian is perfectly qualified to do this chore. Assign the pedestrian to send the alarm and direct the firefighter while you, as a trained firefighter, begin search and rescue operations.
- 48) (C) The best course in dealing with irate citizens is a patient explanation.
- 49) (D) There is no point in further antagonizing the man. On the other hand, by all means, let him know that you are involved in Fire Department business.
- 50) (D) Because the first company arrived one minute before the second company, the second company arrived one minute after the first. This is the only certain answer.
- 51) (B) The main objective of firefighting at all times is to save the lives of civilians and other firefighters.
- 52) (D) Thermostats, strategically placed long before a fire, might have given advance warning and might have been useful in preventing the development of the fire. However, after the ship is actually on fire, placing thermostats have no effect in controlling the fire.
- 53) (D) When becoming familiar with first-aid it is sometimes better to do nothing rather than attempt to do something that may put the patients at risk for a more serious and permanent injury. For example moving a patient with a suspected spinal injury may cause further damage.

- 54) (C) Under no circumstances should you touch, smell or taste any suspected hazardous substance nor, for that matter, any unknown substance involved in a fire. All the other actions would be correct.
- 55) (D) Collapse of the buildings may be imminent. The weight of water causes beams to sag in the middle which, in turn, pulls them from their supports on the sides of the building. The large slabs of falling plaster are further indication of the shifting of floors and walls. The situation in the old loft building is by no means normal or routine.
- 56) (A) Dangers of radiation come from length of exposure, the nature of the radiation and the intensity of the radiation. Atmospheric conditions have little influence on the hazards from radiation exposure.
- 57) (D) While the use of seatbelts does save lives and limit many injuries, it is not a 100 percent effective measure. Use of seatbelts, especially without the shoulder harness in place, does not always prevent injury to abdomen, spine and pelvis. The other assumptions all deserve consideration.
- 58) (D) A second search is very much in order, but it should be made by a different group of firefighters. If the first group has not found victims, it makes sense to send another group that might have different, more effective methods. The other procedures are all proper and helpful.
- 59) (B) In the early morning, a theater is unlikely to be occupied- Since lifesaving is the paramount concern, an unoccupied structure should not divert attention from a building where lives are in danger.
- 60) (D) Your knowledge of human nature should tell you that the hotel management is concerned with public relations. Fear of panic among guests and publicity that the hotel is fire-prone combine to discourage hotel management from reporting fires promptly.
- 61) (B) Room 304 is on the south side of the building. Room 306 is the nearest room to the west of Room 304.
- 62) (B) Stairway B as shown on the diagram is the closest Stairway A was used by the firefighters to gain access to the third floor.
- 63) (A) Room 303 is directly across the hallway from Room 304. Room 403 is directly above Room 303.

64) (A) by checking the compass points in the center of the diagram; we know that rooms 303 and 305 are on the south side of the courtyard. Rooms 323 and 325 are on the opposite side of the courtyard, which is the north side of the building.

65) (D) Stairway D is the correct answer. The north east stair is in Stairway C. By coming up Stairway D, both hose lines can operate from the same directions to extinguish the fire.

66) (B) is the correct answer. In reading the passage it states that before the firefighters use the tool they should turn the door knob to see if the door is unlocked.

67) (C) is the correct answer. The firefighter first choice, the aerial ladder was being used to perform an immediate rescue. Therefore according to the order of preference, the second choice -an attached building of the same height of the fire building is to be used.

68) (A) this is the proper procedure as stated in step 3B and Step 4. Opening the skylight will immediately ventilate the interior stairs, causing pent-up smoke and gases to escape. This makes it easier for firefighting interior forces to operate.

69) (A) is correct. The sleeping baby inside the car poses the greatest risk of danger because the leaking gasoline poses the risk of ignition and possible explosion. The other choices shows less urgency of immediate rescue.

70) (B) is the correct answer. The wood partials in the woodworking shop can easily ignite and smoking cigarette by employees in this area would pose the greatest danger of fire.

71) (C) is the correct answer. A parked truck may cause a significant delay in response because the driver would first have to be located to move the vehicle.

72) (A) is the correct choice. The fumes from the half-filled gasoline tank could easily ignite.

73) (A) is the correct choice. The blocked exit door would prevent workers or customer from leaving the restaurant in an event of an emergency or a fire. Furthermore it would prevent firefighter access through the blocked exit doors.

74) (D) A gas leak to a closed basement could result in an explosion. The closed basement would allow the gas to accumulate until it reached a gas-air mixture that would explode if a source of ignition was present. That source of ignition might be the furnace being fired or an electrical spark.

75) (A) A firefighter assigned to the roof position that sees the roof sagging and in danger of collapse. should give a "may day" signal immediately. This alerts all firefighters operating on the top floor to evacuate the collapse area at once.

76) (B) A person bleeding heavily from a stomach wound is in serious condition. If the bleeding is not halted, the victim can go into shock and die from loss of blood.

77) (C) At this fire, the occupant of the fourth floor should be rescued first. The floor directly above the fire is the most seriously exposed floor. Dangerous products of combustion, mainly carbon monoxide, rise rapidly through convection to fill the area

excluding oxygen and causing death or serious injury to trapped people.

78) (A) The answer is in the third sentence.

79) (D) See the second paragraph. The reason is that if the hose line is taken from the outlet on the fire floor and the fire gains control of the floor and hall, there is the possibility that the line may have to be abandoned- Using the outlet below the fire enables firefighters to work in a smoke free atmosphere. Should the fire get out in the hallway, they still can maintain control of the water supply.

80) (B) Search and rescue, especially with knowledge of trapped victims, as in this case must be the first order of business.

81) (D) See the last paragraph. The tool attached to the rope is likely to be an axe, but it is not specified in the passage. The tool attached to the rope gives the firefighter greater reach when breaking windows from above.

82) (C) Almost by definition, the roof person would effect a rescue from above the fire. Fourteen-story buildings do not have fire escapes; therefore, rescue from above, except on the highest floors where it might be made from the roof, must be made from an apartment window above the fire.