**2016 Coal Mine Rescue Statements of Fact**

Practice Questions and Answers

1. To test for methane, use a methane detector or \_\_\_\_\_\_\_\_\_\_. (Statement No. 1)

1. flame safety lamp
2. pitot tube
3. chemical analysis\*
4. galvanometer

2. Carbon monoxide can be detected by means of carbon monoxide detectors, smoke detectors, or by chemical analysis. (Statement No. 2)

1. True
2. False\*

3. Nitrogen dioxide is produced by burning and by the detonation of explosives. (Statement No. 3)

1. True\*
2. False

4. A mixture of coal dust in air \_\_\_\_\_\_\_\_\_\_ the explosive limit of methane. (Statement No. 4)

1. increases
2. raises
3. reduces\*
4. lowers

5. Five to fifteen percent methane together with coal dust in air may be explosive. (Statement No. 5)

1. True
2. False\*

6. Mines below the water table tend to have more methane than those above the water table. (Statement No. 6)

1. True\*
2. False

7. After \_\_\_\_\_\_\_\_\_\_, rescue teams are usually needed to go into the mine to assess and re-establish ventilation. (Statement No. 7)

1. an inundation of gas or water
2. initial mine rescue training
3. a fire or explosion in a mine\*
4. a team briefing

8. The range of concentrations within which a gas will explode are known as its “explosive range”. (Statement No. 8)

1. True\*
2. False

9. Any \_\_\_\_\_\_\_\_\_\_ gas can explode under certain conditions. (Statement No. 9)

1. noxious
2. flammable\*
3. inflammable
4. toxic

10. \_\_\_\_\_\_\_\_\_\_ firefighting methods allow firefighters to remain a safe distance from the fire. (Statement No. 10)

1. Direct
2. Combined
3. Indirect\*
4. Traverse

11. Temporary seals are built before permanent seals are erected in order to \_\_\_\_\_\_\_\_\_\_ a fire area as quickly as possible. (Statement No. 11)

1. isolate
2. seal off\*
3. douse
4. extinguish

12. In mines where head coal (roof coal) is left, a methane ignition is likely to occur. (Statement No. 12)

1. True
2. False\*

13. One hazard of \_\_\_\_\_\_\_\_\_\_ during a fire is that it tends to weaken the roof, especially where head coal is left. (Statement No. 13)

1. heat\*
2. humidity
3. dryness
4. evaporation

14. Fires can be attacked by the use of a foam generator from a distance of 1,000-2,000 feet. (Statement No. 14)

1. True
2. False\*

15. It is generally recommended that teams not travel through \_\_\_\_\_\_\_\_\_\_. (Statement No. 15)

1. oxygen deficient atmospheres
2. toxic atmospheres
3. foam filled areas\*
4. waist-deep water

16. One method of indirect firefighting is sealing the flooded fire area with water. (Statement No. 16)

1. True
2. False\*

17. Once an explosion has occurred, there is always the possibility of high concentrations of nitrogen dioxide. (Statement No. 17)

1. True
2. False\*

18. Mine rescue teams may find it necessary to use \_\_\_\_\_\_\_\_\_\_ to sweep noxious or explosive gases from a face area. (Statement No. 18)

1. seals
2. temporary stoppings
3. line brattice\*
4. airlocks

19. Once ventilation has been advanced and fresh air re-established, non-apparatus crews can take over the rehabilitation and cleanup effort. (Statement No. 19)

1. True
2. False\*

20. Rescue teams are responsible for assessing damage to the ventilation system. (Statement No. 20)

1. True\*
2. False

21. Information the team relays to the fresh-air base as it proceeds is known as the “de-briefing”. (Statement No. 21)

1. True
2. False\*

22. It is the responsibility of rescue team members to have all the information needed to do the work. (Statement No. 22)

1. True\*
2. False

23. When a team locates a fire extinguisher, its location and position should be marked on a mine map and on the roof or rib near the device. (Statement No. 23)

1. True
2. False\*

24. The rescue team captain should regulate the team’s pace according to \_\_\_\_\_\_\_\_\_\_. (Statement No. 24)

1. the distance traveled
2. the condition of the weakest team member
3. instructions from the fresh air base
4. conditions encountered\*

25. When a body is first located, every effort should be made not to disturb any ventilation controls in the area. (Statement No. 25)

1. True
2. False\*

26. In situations too hazardous for teams to explore and reventilate safely, teams may be instructed to \_\_\_\_\_\_\_\_\_\_. (Statement No. 26)

1. seal the area\*
2. evacuate the mine
3. continue exploration
4. sweep with line brattice

27. New mine rescue team members must have at least \_\_\_\_\_\_\_\_\_\_ of instruction on the breathing apparatus used by the team. (Statement No. 27)

1. 20 hours\*
2. 40 hours
3. 32 hours
4. 8 hours

28. Before the team leaves the fresh-air base to travel inby, the captain should take note of the time of departure. (Statement No. 28)

1. True\*
2. False

29. It is recommended that team checks be conducted every \_\_\_\_\_\_\_\_\_\_. (Statement No. 29)

1. 10 to 15 minutes
2. 15 to 20 minutes\*
3. 20 to 25 minutes
4. 30 minutes

30. It is recommended that the first stop for a team check be just outby the fresh-air base. (Statement No. 30)

1. True
2. False\*

31. For teams using a compressed oxygen breathing apparatus, the captain usually notes each team member’s gauge reading at each rest stop and reports the average reading to the fresh air base. (Statement No. 31)

1. True
2. False\*

32. "\_\_\_\_\_\_\_\_\_\_" is the process by which you systematically explore all crosscuts and adjacent areas as you \_\_\_\_\_\_\_\_\_\_. (Statement No. 32)

1. Tying in, retreat
2. Progressive ventilation, retreat
3. Tying in, advance\*
4. Counting off, advance

33. As the team retreats underground, the captain takes the lead. (Statement No. 33)

1. True
2. False\*

34. It is important that the team pace its work so that it can return to the surface on time. (Statement No. 34)

1. True
2. False\*

35. As the team advances, the \_\_\_\_\_\_\_\_\_\_ records what the team encounters by marking the information on a mine map. (Statement No. 35)

1. tail man
2. gas man
3. map man\*
4. captain

36. The \_\_\_\_\_\_\_\_\_\_ is responsible for choosing the exact sites within headings for building \_\_\_\_\_\_\_\_\_\_. (Statement No. 36)

1. team, ventilation controls
2. team, temporary stoppings
3. captain, seals
4. team, seals\*

37. Smoke causes a lack of orientation which may cause a team member to lose his/her sense of balance. (Statement No. 37)

1. True\*
2. False

38. Class D fires involve flammable or combustible liquids. (Statement No. 38)

1. True
2. False\*

39. Class D fires involve combustible metals. (Statement No. 39)

1. True\*
2. False

40. Before using a hand held extinguisher it must be \_\_\_\_\_\_\_\_\_\_ for the type of fire you are fighting. (Statement No. 40)

1. tested
2. inspected
3. checked\*
4. examined

41. Solubility is the ability of a liquid to be dispersed in air. (Statement No. 41)

1. True
2. False\*

42. Areas containing black damp can release water soluble gases into the air when they are stirred up. (Statement No. 42)

1. True
2. False\*

43. Low expansion foam is light and resilient and can travel long distances to a fire without breaking down. (Statement No. 43)

1. True
2. False\*

44. Low expansion foam is very wet and resilient and can only be used when you’re close enough to a fire to force the foam directly onto the fire. (Statement No. 44)

1. True
2. False\*

45. Carbon monoxide is explosive. (Statement No. 45)

1. True\*
2. False

46. \_\_\_\_\_\_\_\_\_\_ is a supporter of combustion. (Statement No. 46)

1. Nitrogen
2. Oxygen\*
3. Methane
4. Carbon dioxide

47. If smoke is so dense as to make visibility poor, you may need to keep in constant physical contact with a rail, a compressed air or water line, or the mine floor in order to feel your way along. (Statement No. 47)

1. True
2. False\*

48. Two types of fire cannot be fought directly, gaseous and spon com (spontaneous combustion), these will be extinguished only by remote controls. (Statement No. 48)

1. True
2. False\*

49. Team safety must not be compromised. Although “Time is never your friend” do not be in too great a hurry and do not permit others to hurry. (Statement No. 49)

1. True\*
2. False

50. Monitoring pressures and gases helps determine what is the danger of combustion, how soon firefighters have to move to safety, how effective are the techniques being used and is the fire under control. (Statement No. 50)

1. True
2. False\*

51. Sulfur dioxide and hydrogen sulfide are water soluble gases. (Statement No. 51)

1. True\*
2. False

52. Color, odor, and specific gravity are physical properties that help to identify gases during barefaced exploration. (Statement No. 52)

1. True
2. False\*

53. Only detectors and chemical analysis can positively identify a gas. (Statement No. 53)

1. True\*
2. False

54. The effects of toxic gases depend on the concentration, toxicity, and \_\_\_\_\_\_\_\_\_\_. (Statement No. 54)

1. temperature
2. pressure
3. exposure time\*
4. relative humidity

55. Combustibles are gases which cause suffocation or choking. (Statement No. 55)

1. True
2. False\*

56. Whitedamp is a mixture of methane in air that will burn or explode when ignited. (Statement No. 56)

1. True
2. False\*

57. If there is a sufficient amount of hydrocarbons in smoke, the smoke may be explosive. (Statement No. 57)

1. True\*
2. False

58. Ventilation controls are used underground to properly distribute air to all sections of the mine. (Statement No. 58)

1. True\*
2. False

59. Gases with specific gravities less than 1.0 tend to seek low places. (Statement No. 59)

1. True
2. False\*

60. Gases with specific gravities greater than 1.0 tend to seek high places. (Statement No. 60)

1. True
2. False\*

61. In order to maintain an \_\_\_\_\_\_\_\_\_\_, one door of the airlock must be kept closed while the other is opened. (Statement No. 61)

1. seal
2. airlock\*
3. regulator
4. overcast

62. Rescue teams should build an airlock so that the two stoppings are erected as far away as possible yet with enough space to allow room for the team and their equipment to fit in between. (Statement No. 62)

1. True
2. False\*

63. If the fresh air base is underground, it should be located where it’s assured a fresh air travelway to the surface. (Statement No. 63)

1. True\*
2. False

64. The fresh air base should be located where it’s assured positive ventilation and fresh air. (Statement No. 64)

1. True\*
2. False

65. \_\_\_\_\_\_\_\_\_\_ should be tested before use following a disaster. (Statement No. 65)

1. Gas detecting devices
2. The stretcher
3. Elevators\*
4. The mine fan

66. As a team advances, it is important to stay in close contact with \_\_\_\_\_\_\_\_\_\_ to report team progress and to receive further instructions. (Statement No. 66)

1. the surface
2. the fresh air base/command center\*
3. the MSHA inspector
4. mine management

67. Methane is lighter than air. (Statement No. 67)

1. True\*
2. False

68. Nitrogen has a specific gravity of one. (Statement No. 68)

1. True
2. False\*

69. Sufficient time should be allowed for a fire area to cool before it is unsealed. (Statement No. 69)

1. True\*
2. False

70. Team captains should inspect \_\_\_\_\_\_\_\_\_\_ before the team members advance into the area. (Statement No. 75)

1. roof and ribs\*
2. ventilation controls
3. gas detecting devices
4. the communicaton system

71. The roof and ribs should be tested before removing a patient. (Statement No. 71)

1. True
2. False\*

72. Roof and ribs should be marked to warn other teams that may enter the area after yours. (Statement No. 72)

1. True
2. False\*

73. Progress reports should include reports on battery life and gas conditions. (Statement No. 73)

1. True
2. False\*

74. The time spent under oxygen by a rescue team is usually limited to two hours or less. (Statement No. 74)

1. True\*
2. False

75. When looking for \_\_\_\_\_\_\_\_\_\_, it is important to both look and listen for clues. (Statement No. 75)

1. evidence
2. ignition sources
3. fires
4. survivors\*

76. For a Class B fire (electrical), if power has been cut off to the burning equipment, it may be treated as a Class A or C fire. (Statement No. 76)

1. True
2. False\*

77. When survivors are located, their location, \_\_\_\_\_\_\_\_\_\_, and condition should be reported immediately to the command center. (Statement No. 77)

1. identities\*
2. descriptions
3. medical history
4. social security number

78. When survivors are located, the location, time, and date should be marked on the survivor and on the rib where they are found. (Statement No. 78)

1. True
2. False\*

79. When survivors are found, they should be transported to \_\_\_\_\_\_\_\_\_\_ as quickly as possible. (Statement No. 79)

1. the fresh air base
2. a medical facility
3. safety and fresh air\*
4. the first aid room

80. The main objective of recovery work is team safety and the rescue of survivors. (Statement No. 80)

1. True
2. False\*

81. All temporary seals should be well hitched in the floor roof, and ribs to improve their strength. (Statement No. 81)

1. True\*
2. False

82. Monoammonium phosphate is an effective sealant when used around the perimeter of a seal. (Statement No. 82)

1. True
2. False\*

83. High volatile coal burns much slower than low or medium volatile coal. (Statement No. 83)

1. True
2. False\*

84. It may be necessary to double or triple the thickness of the material in order to improve the effectiveness of a temporary seal. (Statement No. 84)

1. True\*
2. False

85. Permanent stoppings should be built at locations with good roof and even roof and ribs. (Statement No. 85)

1. True
2. False\*

86. Hazards of direct firefighting are electric shock or electrocution, toxic and asphyxiating gases, oxygen deficiency, explosive gases, heat, smoke and steam. (Statement No. 86)

1. True\*
2. False

87. When fires are sealed in gassy or dusty mines, a thick coating of Urethane foam should be applied to the ribs, roof and floor for several hundred feet outby the seals, and if possible, inside the seal, to reduce the chance of propagating a coal dust explosion. (Statement No. 87)

1. True
2. False\*

88. The main objectives of exploration work during a mine fire are the rescue of survivors and the recovery of the mine. (Statement No. 88)

1. True
2. False\*

89. A self-contained breathing apparatus is a completely portable unit that supplies oxygen or air independently of the surrounding atmosphere. (Statement No. 89)

1. True\*
2. False

90. A smoke tube is used to show the direction and velocity of slow moving air. (Statement No. 90)

1. velocity
2. quantity
3. volume\*
4. amount

91. If a team member must return to the fresh air base because of a problem, it is standard practice among teams for the entire team to go back with that person. No one should ever travel alone. (Statement No. 91)

1. True\*
2. False

92. Multi-gas detectors should only be used in less than 1 percent of Methane. (Statement No. 92)

1. True
2. False\*

93. Once rescued, survivors should \_\_\_\_\_\_\_\_\_\_. (Statement No. 93)

1. wait for the team to complete exploration
2. never be left alone\*
3. be taken to safety and fresh air
4. be taken to a medical facility

94. The lower explosive limit of hydrogen is 4.0 percent. (Statement No. 94)

1. True\*
2. False

95. The IDLH of Nitrogen Dioxide is 35 ppm. (Statement No. 95)

1. True
2. False\*

96. Clean, dry air at sea level is made up of 78 percent nitrogen and 21 percent oxygen. (Statement No. 96)

1. True\*
2. False

97. After a fire has been sealed, the practice has been to wait 72 hours before making the initial visit to the seals. (Statement No. 97)

1. True\*
2. False

98. When appropriate, a fire area is not un-sealed until the oxygen content is low enough to make explosions unlikely and the carbon monoxide has disappeared. (Statement No. 98)

1. True
2. False\*

99. Firefighters force inert gases into areas where they are trying to remove the fuel leg of the fire triangle. (Statement No. 99)

1. True
2. False\*

100. A team is a unit made up of individuals working toward a common goal. (Statement No. 100)

1. True\*
2. False