

Written Field Test
2012 Nevada Regional Contest
March 14-15, 2012
Winnemucca, NV

Name _____ Company _____

Team Name _____ Contest Position No. _____

Team Member No. _____

Instructions: Please select your answer by circling the letter next to it.
If you make a mistake please fully erase your circle.

1. A gas detector that is used for mine rescue must measure at least 9,999 parts per million for carbon monoxide.
A. True
B. False

2. If oxygen content drops below 10%, hydrogen will not explode.
A. True
B. False

3. You can allow a rescued miner to walk out of the mine alone if the miner appears to be in good shape.
A. True
B. False

4. Carbon monoxide is produced by the burning or detonation of explosives.
A. True
B. False

5. Which of the following are highly toxic gases?
A. carbon monoxide
B. sulfur dioxide
C. acetylene
D. all of the above
E. A and B above
F. none of the above

6. Normal air is composed of oxygen, nitrogen, argon, carbon dioxide, neon, helium, krypton, xenon, hydrogen, methane, ozone, and nitrous oxide.
- A. True
 - B. False
7. What property is common to Carbon Dioxide, Nitrogen Dioxide and Sulfur Dioxide?
- A. heavier than air
 - B. non-explosive
 - C. both of the above
 - D. none of the above
8. The most accurate method to take readings with a smoke tube is to stand in the middle of the drift.
- A. True
 - B. False
9. When constructing a temporary bulkhead from a crosscut, the bulkhead should be ____ feet into the passageway.
- A. 10 to 12
 - B. 1 to 2
 - C. 4 to 6
 - D. None of the above
10. The cross-sectional area of the airway is determined by multiplying the width times the length.
- A. True
 - B. False
11. Which of the following is not a characteristic of sulfur dioxide?
- A. toxic
 - B. irritant
 - C. soluble
 - D. explosive
12. A body at 21 degrees C or higher will decay very rapidly.
- A. True
 - B. False

13. Which of the following is not a second priority condition?
- A. multiple fractures
 - B. second degree burns involving 15 to 30% of body
 - C. chest injuries
 - D. moderate heat exhaustion
14. CO₂ is not soluble in water.
- A. True
 - B. False
15. Exposure to carbon monoxide concentrations as low as ____% can kill you within three hours
- A. .5
 - B. .25
 - C. .05
 - D. .01
16. Exposure to an atmosphere containing 5% carbon dioxide can increase respiration rates to ____%.
- A. 500
 - B. 150
 - C. 300
 - D. None of the above
17. This gas is hard to disperse; it is very toxic; as little as 0.04 to 0.05% is dangerous to life.
- A. H₂S
 - B. CO₂
 - C. SO₂
 - D. NO₂
18. The recommended type of extinguisher for mine rescue teams is a multi-purpose dry chemical type that contains.
- A. sodium bicarbonate
 - B. potassium chloride
 - C. carbon tetrachloride
 - D. monoammonium diphosphate
 - E. none of the above

19. High expansion foam is useful only in fighting class _____ fires.
- A. A, B, and C
 - B. A or C
 - C. C or D
 - D. A or B
20. A chain of command is established so that surface arrangements can be handled smoothly.
- A. True
 - B. False
21. The chain of command is responsible for making arrangements for sleeping quarters.
- A. True
 - B. False
22. The press room and the family waiting area can be the same room.
- A. True
 - B. False
23. Checking and mapping the condition of compressed airlines is important because:
- A. Some firefighting equipment uses compressed air.
 - B. Trapped miners might use the airlines for breathing air.
 - C. Air powered fans could be affected.
 - D. A and C only
 - E. All of the above
24. Usually the gases analyzed to determine the time for unsealing a fire area is:
- A. CO, O₂, CO₂, CH₄, H₂, N₂, C₂H₆
 - B. CO₂, CO, O₂, CH₄, N₂, H₂
 - C. O₂, CO₂, CO, NO₂, H, N₂
 - D. CH₂, O₂, CO₂, CO, CH₄
25. The electrical power in the sealed area must be cut off to prepare to open a sealed area.
- A. True
 - B. False

26. The disadvantage of progressive ventilation is:
- A. that it may be too fast to determine gas readings
 - B. that it is only effective in multiple level mines
 - C. that it is a slow process
 - D. none of the above
27. The only practical means of eliminating the possibility of rekindling the fire is to remove the heated material.
- A. True
 - B. False
28. The fresh air base may contain all of these except:
- A. a coordinator
 - B. an advisory committee
 - C. federal and state officials
 - D. union representatives
 - E. all may be at the fresh air base
 - F. only the coordinator may be at the fresh air base
29. Synchronizing all watches is a function performed by the team captain before going underground.
- A. True
 - B. False
30. The following map symbol \approx indicates what?
- A. air flow
 - B. escape route
 - C. temporary stopping with a regulator
 - D. none of the above