**Southwest Wyoming Mutual Aid Mine Rescue Contest**

**GREEN RIVER, WY**

**JUNE 10-13, 2014**

**MINE RESCUE WRITTEN TEST**

Name:

Team:

1. What is triage?

1. A system of assigning priorities of medical treatment to injured persons.
2. A system of working in teams of 3 to explore
3. A system of assigning priorities of psychological treatment to injured persons
4. None of the above

2. Which of the following is true?

1. A decrease in temperature causes a gas to contract
2. A decrease in pressure causes a gas to expand
3. Both A and B
4. None of the above

3. A rise in temperature causes a gas to diffuse more slowly.

1. True
2. False

4. Where should you hold your portable detector when measuring oxygen deficiency?

1. Breathing zone
2. Above head
3. Near the floor
4. Waist Level

5. Approximately how long will it take to kill a person exposed to 500 ppm carbon monoxide?

1. 12 hours
2. 6 hours
3. 3 hours
4. 15 minutes

6. Which of the following is not an explosive gas?

1. Carbon monoxide
2. Methane
3. Hydrogen sulfide
4. Oxygen

7. Detecting small concentrations of heavy hydrocarbons could indicate a mine fire.

1. True
2. False

8. Small quantities of hydrogen reduce the explosive range of other gases.

1. True
2. False

9.  is the map symbol for:

1. Box check
2. Main fan
3. Overcast
4. Undercast

10.  is the map symbol for:

1. Door
2. Damaged bulkhead
3. Track
4. Damaged airline

11. is the map symbol for:

1. Furthest point of advance
2. Air line
3. Fire line
4. Auxiliary fan and tubing

12. The time a team works underground is usually limited to:

1. 1 hour
2. 2 hours
3. 4 hours
4. As long as they have oxygen

13. It is only essential to tie in when you do not know where survivors are located.

1. True
2. False

14. A survivor who has lost his left hand but the bleeding is controlled should be classified as:

1. First Priority
2. Second Priority
3. Third Priority
4. Delayed Priority

15. A survivor who has a fractured hand, minor bleeding, first-degree burns on 10% of his body, and chest injuries should be classified as:

1. First Priority
2. Second Priority
3. Third Priority
4. Immediate Priority

16. Which is not a common surface arrangement that should be considered during a rescue and recovery operation?

1. Food and Sleeping Quarters
2. Laboratory
3. Medical Facilities
4. Waiting room for both family members and members of the press

17. Why is it important to establish a clear chain of command?

1. To make it easier to determine who is liable in an accident
2. So rescue and recovery work will be well coordinated
3. To approve overtime for mine rescue teams
4. So MSHA will be happy

18. Given equal concentrations of gasses and constant ventilation, which of the following gases will diffuse most quickly:

1. Methane
2. Hydrogen Sulfide
3. Nitrogen dioxide
4. Sulfur dioxide

19. is not soluble in water?

1. Hydrogen
2. Hydrogen Sulfide
3. Methane
4. Radon

20. High hydrogen levels could indicate:

1. Proper ventilation around battery charging stations
2. Mine fire
3. Decay of organic matter
4. None of the above

21. The purpose of a bulkhead is to direct air throughout the mine and to keep intake air from short-circuiting to the exhaust air before ventilating the working places.

1. True
2. False

22. Two common tools for measuring airflow are:

1. Anemometer and diffusion tube
2. Windsock and sling psychrometer
3. Anemometer and smoke tubes
4. None of the above

23. Whenever possible during exploration, the mine should be entered through the safest exhaust airway.

1. True
2. False

24. Tying in during exploration is important to ensure:

1. The team is never forward of an unexplored area
2. To get more overtime
3. The conditions are known in every entry and drift
4. Both a and c

25. A caplamp can be held at waist-level to aide in traveling in smoke.

1. True
2. False

26. What type of fire is a kerosene fire?

1. Class A
2. Class B
3. Class C
4. Class D

27. Fog spray water nozzles are best used to fight fires that are close.

1. True
2. False

28. If a victim is lying face down, the front of the body will likely be dark.

1. True
2. False

29. Recovering bodies after a disaster is important to the families to:

1. Provide emotional closure
2. Insure that insurance and legal proceedings can go forward
3. Both A & B
4. None of the above

30. What is the advantage of progressive ventilation:

1. Faster than direct ventilation
2. Gas conditions can be carefully controlled
3. Teams get more overtime
4. Ventilates entire areas or levels quickly