

**Ruidoso Mine Rescue Contest
New Iberia
April 30, 2008**

Team Trainer Test

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1. If you know the specific gravity of a gas, you will know where it will be located in the mine and where you should test for it.
 - a. True
 - b. False
 2. It is much easier to remove a concentration of sulfur dioxide by ventilation than it is to remove the same concentration of hydrogen.
 - a. True
 - b. False
 3. During recovery of previously sealed areas, walking through water can result in the release of soluble gases that would not normally be in the mine atmosphere.
 - a. True
 - b. False
 4. The degree to which a toxic gas will affect you depends on:
 - a. How concentrated the gas is
 - b. How toxic (poisonous) the gas is
 - c. How long you're exposed to the gas
 - d. All of the above
 - e. None of the above.
 5. If you wear your self-contained breathing apparatus in petroleum based fumes for prolonged or successive periods, the fumes can eventually permeate its rubber parts so that the apparatus no longer provides you with adequate protection.
 - a. True
 - b. False
 6. Oxygen deficiency in a mine can result from:
 - a. Insufficient ventilation
 - b. Displacement by other gases
 - c. Fire or explosion
 - d. Worker consumption
 - e. All of the above.
 7. Exposure to low levels of carbon monoxide (0.15 to 0.20 percent) is not dangerous.
 - a. True
 - b. False
 8. High nitrogen dioxide readings could indicate:
 - a. There has been a fire or explosion
 - b. Malfunctioning electrical equipment producing arcs or sparks
 - c. Inadequate ventilation of diesel equipment
 - d. All of the above
 - e. None of the above
 9. Which of the following applies to hydrogen sulfide?
 - a. It can be flammable and explosive in the right concentration
 - b. It is one of the most poisonous gases known
 - c. It is colorless but tastes like rotten eggs
 - d. All of the above
 - e. Only a. and b. above
 10. Methane will be found only in bituminous coal mines or near oil/gas wells that penetrate metal/nonmetal mines.
 - a. True
 - b. False
 11. Blackdamp is a mixture of carbon dioxide, nitrogen, air and probably carbon

- monoxide and can cause suffocation.
- True
 - False
12. During rescue and recovery operations, the main fan(s) should be monitored or guarded to insure that it operates continuously.
- True
 - False
13. Map legends and symbols are uniform throughout the mining industry.
- True
 - False
14. A properly installed regulator will not affect the quantity of airflow.
- True
 - False
15. Mine rescue teams should close bulkhead man doors as soon as they are found open and then immediately notify the command center.
- True
 - False
16. Being able to determine the direction and velocity of airflow enables the team to check whether the ventilation system is functioning as it should in a given area.
- True
 - False
17. Bare-faced exploration may be conducted when:
- The ventilation system is operating properly
 - There is sufficient oxygen and no buildup of dangerous gases
 - A backup crew with apparatus is immediately available
 - All of the above
18. Sometimes "runners" are stationed at the fresh air base to carry messages to the rescue team during exploration work.
- True
 - False
19. The duties of the fresh air base coordinator are:
- Handle communication with the team and the command center
 - Map the team's progress and findings
 - Coordinate and oversee activities at the fresh air base
 - All of the above
20. The first priority in exploration is to rescue survivors.
- True
 - False
21. It is recommended that you make your first stop for a team check as soon as possible after leaving the fresh air base.
- True
 - False
22. If locomotives are used for exploration, it is recommended that at least two be used in case one breaks down.
- True
 - False
23. The principle that underlies almost all firefighting methods is the removal of one leg of the fire triangle (fuel, oxygen, heat).
- True
 - False
24. The National Fire Protection Association classifies fires into five classes: A, B, C, D, & E.
- True
 - False
25. Direct firefighting involves certain hazards to the team, including:
- Electrocution
 - Toxic and asphyxiating gases

- c. Oxygen deficiency and explosive gases
- d. Heat, smoke, and steam
- e. All of the above

26. In the code of federal regulations 49.1 "availability of mine rescue teams" clearly outlines the requirements of a mine rescue team except teams operating under 49.3 or 49.4

- a. true
- b. false

27. After an explosion has occurred, the hazards a team might encounter are:

- a. spreading fires
- b. further explosions
- c. weakened ground conditions
- d. all of the above

28. The preferred type of extinguisher for teams is a dry chemical type that contains:

- a. sodium bicarbonate
- b. potassium chloride
- c. carbon tetrachloride
- d. monoammonium phosphate

29. The appropriate rate of compressions during adult CPR is () per minute.

- a. 80 to 100
- b. no faster than 80
- c. about 100
- d. no faster than 120

30. Infectious diseases range from such generally mild conditions as the common cold to life-threatening diseases such as tuberculosis. The four diseases of most concern the emergency medical responders are:

- a. human immunodeficiency virus, hepatitis, tuberculosis, meningitis
- b. AIDS, hepatitis, blood borne pathogen, influenza
- c. typhoid fever, viral encephalitis, bacterial meningitis, SARS
- d. hepatitis, tuberculosis, meningitis, Lyme disease

31. two ways to best minimize the stress associated with responding to emergencies are to work closely with other more experienced responders and:

- a. stay out of harms way
- b. medication
- c. practice your skills often
- d. don't recognize stress as being a problem

32. An elevated concentration of carbon dioxide (CO₂) in a mine can be harmful because:

- a. it is highly explosive
- b. it increases the breathing rate
- c. it is highly toxic in small concentrations
- d. all of the above

33. During an emergency MSHA will issue a 103A order. This order is intended to protect miners and prevents the company from doing anything without MSHA oversight.

- a. true
- b. false

34. A MSHA District manager can revoke a mine rescue instructor's approval to instruct for good cause. Once decided by the District manager this is a final decision.

- a. true
- b. false

35. A mine rescue team member will be ineligible to serve on a team if () hours are missed during a one year period.

- a. 4 hours
- b. 6 hours
- c. 8 hours
- d. 10 hours

