

**COLORADO MINE RESCUE CONTEST
GOLDEN, CO
MAY 20-22, 2014**

TEAM TRAINER TEST

Name: _____

Team: _____

1. If an authorized representative of the Secretary issues an order under 107(a) of the mine act, all persons including any person whose presence in such area is necessary to eliminate the condition described in the order, must withdraw from the affected area and be prohibited from entering the area until an authorized representative determines that such imminent danger and the conditions or practices which caused such imminent danger no longer exist.
 - a. True
 - b. False

2. Under Section _____ of the Mine Act of 1977, the Secretary shall provide a minimum of one spot inspection during every five working days whenever a mine liberates excessive quantities of methane or other explosive gases.
 - a. 103(a)
 - b. 103(i)
 - c. 103(j)
 - d. 103(k)

3. Under Section _____ of the Mine Act of 1977, the operator is required to obtain the authorized representative's approval of any plan to recover any person in a mine or to recover the mine, or in order to return affected areas of the mine to normal.
 - a. 103(a)
 - b. 103(i)
 - c. 103(j)
 - d. 103(k)

4. Which of the following equipment is not required in each rescue station:
 - a. Two extra, fully charged oxygen bottles for every six SCBAs
 - b. Four gas detectors appropriate for each type of gas that may be encountered at the mines served
 - c. Twelve SCBA, each with a minimum of 6 hours capacity
 - d. Necessary spare parts and tools for repairing the breathing apparatus and communication system.

5. What is the maximum number of employees an underground mine can have to be considered small and remote for the purposes of alternative mine rescue capability?
 - a. 36
 - b. 12
 - c. 50
 - d. 48

6. A patient with no spinal injuries may be placed in a Fowler's position to allow for more effective care of nausea.
 - a. True
 - b. False

7. Which of the following is the preferred method of immobilizing an injured elbow found in a flexed (bent) position?
 - a. Sling and swathe
 - b. Body splinting
 - c. Rigid splinting
 - d. None of the above.

8. A patient who presents with tingling in extremities, bowel incontinence, and pain over the spine is likely to have:
 - a. Cardiac arrest
 - b. Spine injury
 - c. Heat exhaustion
 - d. Heat cramps

9. The letters START stand for:
 - a. Simple Triage and Rapid Transport
 - b. Simple Treatment and Rapid Triage
 - c. Simple Treatment and Rapid Treatment
 - d. Simple Triage and Rapid Treatment

10. One of the most common consequences of overinflating a patient during rescue breaths is:
 - a. A ruptured lung
 - b. A weak mask seal
 - c. Inadequate chest rise
 - d. Gastric distention

11. The Hoist signal to hoist muck or materials only:
 - a. 1 Bell
 - b. 3-3-1 Bells
 - c. 1-2-1 Bells
 - d. 2-1-2 Bells

12. Regulators shall not be opened without prior knowledge of their effects on the ventilation system even with a temporary regulator erected
 - a. True
 - b. False

13. The range of an LEL sensor is 0-100 % Methane
 - a. True
 - b. False

14. During a rescue and recovery, the mine superintendent must be ready to obtain gas samples from the main return.
 - a. True
 - b. False

15. Having good security at the mine is important in order to:
- Keep roads closed
 - Ensure that bystanders do not help in the recovery
 - Ensure that the press does not publish negative stories about the mining industry
 - Ensure that bystanders are not injured while on mine property
16. Which of the following is true?
- An increase in temperature and pressure causes a gas to expand
 - A decrease in temperature causes a gas to expand
 - An increase in pressure causes a gas to contract
 - All of the above
17. A rise in barometric pressure causes a gas to diffuse more slowly.
- True
 - False
18. What is the minimum percentage of oxygen needed to combust a 5% methane and oxygen mixture?
- 19.2%
 - 10%
 - 12.1%
 - Any amount
19. Which of the following are health hazards associated with hydrogen sulfide:
- Inflammation of the eyes and respiratory tract
 - Exposure can lead to bronchitis or pneumonia
 - Both a and b.
 - There are none associated
20. Small concentrations of heavy hydrocarbons are often detected:
- During welding
 - After mine fires
 - When breaching into stagnant water
 - While charging batteries

21. When is it appropriate to alter ventilation during exploration?
- Whenever a contaminant is detected
 - Whenever a bulkhead is found damaged
 - Whenever the team captain determines
 - Only with orders from the command center
22. Stopping is another word for:
- Bulkhead
 - Line brattice
 - Check curtain
 - Undercast
23. Quantity of air is determined by multiplying velocity by velocity and then by the cross-sectional area of where the measurement was taken.
- True
 - False
24. A common hazard of traveling in smoke is spatial disorientation.
- True
 - False
25. When traveling in heavy smoke where visibility is nearly zero, fresh material on the floor could indicate bad back or sides.
- True
 - False
26. What type of fire is an electrical fire?
- Class A
 - Class B
 - Class C
 - Class D
27. Only solid stream nozzles should be used to fight fires with water.
- True
 - False

28. Rigor Mortis occurs faster in obese persons than in muscular persons.
- a. True
 - b. False
29. The common method for reestablishing ventilation in multi-level mines is:
- a. Direct ventilation
 - b. Progressive ventilation
 - c. Rapid ventilation
 - d. None of the above
30. Airlock operations should always begin on the exhaust side of the fire.
- a. True
 - b. False