

Welcome Contestants  
Central Mine Rescue Contest  
May 12 through May 14, 2016  
Kellogg, Idaho

**Team Trainer** Written Examination

Choose the most appropriate answer or answers for the questions that follow. Use the supplied score card to record your answers. Please ensure the marks you make are **dark** and **completely fill the box**. If you make a mistake you must completely erase the mark you've made. Improperly marked sheets can result in an incorrect answer.

1. Miners working on the surface of an underground mine cannot under any circumstance serve on an underground mine rescue team.
  - a. True
  - b. False
  
2. In order to apply for "Alternative Mine Rescue Capability for Small and Remote Mines", a mine operator must know how many miners are working underground at mines within 2 hours ground travel time of their mine. To qualify for "Small and Remote" the total underground employment at their mine and those within 2 hours ground travel time must be less than \_\_\_\_.
  - a. 12
  - b. 24
  - c. 36
  - d. 48
  
3. Under 30 CFR, 49.6(a)(5) cap lamps do not need to be permissible.
  - a. True
  - b. False
  
4. Under 49.7(a), a team member requiring corrective eyewear is not disqualified provided the eyeglasses \_\_\_\_\_.
  - a. Have lenses made of plastic
  - b. Have lenses that react to light by getting darker
  - c. Do not have a rim
  - d. Can be worn securely within an approved facepiece

5. How long does the initial course of instruction in the use, care, and maintenance of the type of breathing apparatus used by the team have to be?
  - a. 2 hours
  - b. 10 hours
  - c. 20 hours
  - d. None of the above
  
6. In the event of mine rescue field ties there are \_\_\_\_ potential tie breakers considered to determine the winner.
  - a. 6
  - b. 5
  - c. 4
  - d. 3
  
7. According to the rules the rear captain relays the signal to advance to the fresh air base.
  - a. True
  - b. False
  
8. The hoist signal used to release a conveyance is \_\_\_\_\_.
  - a. 1-2-1 bells
  - b. 3-3-1 bells
  - c. 3-1-2 bells
  - d. 2-1-1 bells
  - e. None of the above
  
9. No barricade will be breached without ventilating in front of the barricade if Carbon Dioxide (CO<sub>2</sub>) exceeds 4%.
  - a. True
  - b. False
  
10. Regulating airflow to control a fire is considered a ventilation change.
  - a. True
  - b. False
  
11. Marked maps (both team and fresh air base) must show \_\_\_\_\_.
  - a. Conditions of all faces
  - b. The location of all placards or materials
  - c. Location of dead bodies
  - d. All of the above
  - e. B and C only

12. The maximum spacing between temporary roof supports is \_\_\_ feet.
- 5
  - 4.5
  - 7
  - 6.5
13. The specific gravity of Nitrogen is:
- 1.1
  - 0.8531
  - 1.34
  - 0.9674
14. The explosive range for carbon monoxide in normal air is:
- 5 to 15%
  - 1 to 10%
  - 12.5 to 74.2%
  - None of the above
15. The specific gravity of hydrogen is:
- 0.0925
  - 0.0695
  - 1.1
  - 1.657
16. Choose the **incorrect** statement below:
- Methane is explosive where there is at least 12.1 percent oxygen
  - Methane is toxic
  - The explosive range of Methane is 5 to 15 percent.
  - Methane is a gas
17. The command center should be consulted before making changes to ventilation because making the wrong alterations can \_\_\_\_\_.
- Cause changes in the air at the fresh air base
  - Force explosive gas over a fire or hot spot
  - Redirect and feed air to a fire
  - All of the above
18. The team captain should make sure each team member's apparatus has been properly prepared and tested before going underground.
- True
  - False

19. Before going underground to explore or fight a fire the team should make sure that:
  - a. The main fan is turned off
  - b. A guard is monitoring the operation of the fan
  - c. Gases are being monitored at the intake
  - d. All of the above
  
20. When preparing for opening a sealed fire area, adjustments must be made so that toxic and explosive gases are directed into the main intake air.
  - a. True
  - b. False
  
21. Which answer is true:
  - a. When tightening the oxygen bottle connection you should always use the wrench supplied by the manufacturer.
  - b. Before inserting the oxygen bottle into the apparatus you should always apply a little bit of bearing grease to the threads.
  - c. It's okay to use rechargeable batteries from any manufacturer in an apparatus.
  - d. None of the above
  
22. If a breathing apparatus is properly assembled and the ambient temperature stays at a steady 75 degrees F, the cooler keeps the air you breathe at a steady 76 degrees F regardless of how long you use it.
  - a. True
  - b. False
  
23. Soaking the cleanable parts of an apparatus in disinfectant can damage them.
  - a. True
  - b. False
  
24. When using the optional alkaline battery pack for the MX6 it's okay to mix alkaline batteries made by different companies.
  - a. True
  - b. False
  
25. Rescue breathing may be necessary when a patient is breathing normally
  - a. True
  - b. False
  
26. The most common cause of airway obstruction in an unresponsive patient is:
  - a. Ice
  - b. Small toys
  - c. Food
  - d. Tongue

27. When taking an initial assessment of a patient's pulse, if you do not feel a radial pulse you should immediately:
- Check for the presence of a brachial pulse
  - Perform a rapid physical exam, take vital signs, gather patient history
  - Check airway and begin CPR
  - Check for the presence of a carotid pulse
28. When assessing a responsive patient's breathing, you should FIRST:
- Grasp the patient's wrist as if you were going to count the pulse rate
  - Listen for abnormal breath sounds
  - Count the number of breaths for 15 to 30 seconds
  - Observe the abdomen move in and out
29. The term "vital signs" refers to:
- Level of consciousness
  - Perspiration
  - That which is vital to the continuation of life
  - Rapid assessment
30. A multi-casualty incident (MCI) is an emergency with more than \_\_\_\_\_ victim(s):
- One
  - Two
  - Five
  - Ten