

2016 TN Mine Rescue Contest
Caryville, TN
Written Test – Mine Rescue Field Competition

11. The TLV for carbon monoxide is 50 ppm. This is equivalent to _____.
- A. 50%
 - B. 0.05%
 - C. 5.0%
 - D. 0.005%
12. For a flammable gas that is present in mining, if there is no oxygen present there cannot be an explosion.
- A. True
 - B. False
13. What is the specific gravity of oxygen?
- A. 1.0000
 - B. 1.2010
 - C. 1.1054
 - D. 1.1030
14. Although an asphyxiant, nitrogen is considered nontoxic.
- A. True
 - B. False
15. What is the second largest component of air?
- A. Nitrogen
 - B. Oxygen
 - C. Argon
 - D. Helium
16. An elevated nitrogen content indicates an oxygen-rich atmosphere.
- A. True
 - B. False
17. Although carbon dioxide is both colorless and odorless at high concentrations it may produce an acid taste.
- A. True
 - B. False

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24. There are three reasons for the team check: 1. To make sure each team member is fit and ready to continue.; 2. To give the team a chance to rest. What is the 3rd reason?
- A. To allow the captain time to review the mine map;
 - B. To make sure each team member's apparatus is functioning properly;
 - C. To meet the Mine Manager prior to entry;
 - D. None of the above.
25. When using a horn as the team signaling device, what does two horn signals mean?
- A. Advance – move toward captain
 - B. Stop
 - C. Retreat
 - D. Distress or emergency
26. During mine rescue if explosive concentrations of gas are detected in the exhaust air of the fire, what is the first step?
- A. Immediately verify the concentrations with a second digital instrument
 - B. Quickly reverse the fans
 - C. Teams and any other underground personnel should leave the mine immediately.
 - D. None of the above.
27. When sealing a mine fire, the only way to keep the air flowing over the fire area is to leave one intake airway and one exhaust airway unsealed while other airways are being sealed.
- A. True
 - B. False
28. A Class D fire involves non-combustible metals.
- A. True
 - B. False

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29. When _____ is the ventilation method of recovery being used, be sure that all unnecessary personnel are out of the mine before air is actually directed into the sealed area.
- A. direct ventilation
 - B. progressive ventilation
30. Gas detectors must measure concentrations of methane from 0.0 percent to 50 percent of volume, oxygen from 0.0 percent to at least 20 percent of volume, and carbon monoxide from 0.0 parts per million to at least 9,999 parts per million.
- A. True
 - B. False