

Choose the correct answer to each of the following questions:

1. Characteristics of hydrogen sulfide include?
 - a. Explosive, highly toxic, and can be liberated from pools of stagnant water
 - b. Irrespirable when greater than 10%
 - c. Supports combustion with oxygen
2. What is the explosive range of hydrogen sulfide?
 - a. 4.3% to 45.5%
 - b. 12.5% to 74.2%
 - c. 5% to 15% in at least 12.1 % oxygen
3. Which of the following is not true of sulfur dioxide?
 - a. Explosive
 - b. Highly toxic
 - c. Highly soluble in water
4. Gas readings should be taken?
 - a. Only when directed by the command center
 - b. At all intersections, any dead end or face areas, and at the furthest point of travel in an entry or heading
 - c. Where explosive gases are encountered
5. Accumulations of hydrogen in the mine atmosphere are dangerous because hydrogen?
 - a. Is highly toxic
 - b. Is highly soluble
 - c. Is highly explosive
6. Line brattice is use to?
 - a. Keep intake air from short circuiting
 - b. Channel intake air from last open crosscut to the working face
 - c. Regulate airflow in the intake split
7. Under what conditions might your team captain order your team back the fresh air base immediately?
 - a. A fire that has been extinguished
 - b. Damages to the permanent ventilation controls
 - c. Hazardous roof that cannot be secured
8. What hazards should the team consider when fighting a mine fire directly?
 - a. Explosive gases, heat, smoke, steam, toxic and asphyxiating gases
 - b. CO above 5 ppm
 - c. O₂ greater than 19.5%
9. The first indication that an explosion has occurred are often similar to?
 - a. An inundation of water
 - b. A fan stoppage
 - c. A large roof fall
10. Burning materials that give off extremely toxic gases in addition to carbon monoxide are?
 - a. The coal seam
 - b. Hydraulic fluids
 - c. Neoprene and other synthetic rubber compounds

11. Foam generators are effective in controlling mine fires in that they?
 - a. Cool the burning materials
 - b. Are not effective if set up long distances from the fire area
 - c. Elevate the oxygen reaching the fire area
12. Nonmetallic tubes or pipes are inserted in temporary and permanent seals for the purpose of?
 - a. Checking for smoke
 - b. Bleeding off excessive pressure from the sealed area
 - c. Collecting air samples from the sealed area
13. The purpose of rescue team exploration is to?
 - a. Determine conditions underground and locate missing miners
 - b. Serve as a back up team in the command center
 - c. Open doors in stoppings
14. The amount of coal dust suspended in the mine atmosphere is most important because?
 - a. It can alter the explosive range of methane
 - b. It can affect the specific gravity of oxygen
 - c. Coal dust lowers the oxygen content
15. During exploration, the main fan?
 - a. Should be turned on when the team encounters mine gases
 - b. Turned off until needed
 - c. Should be kept running and continually monitored