Choose the correct answer to each of the following questions:

1. Characteristics of hydrogen sulfide include?
   1. Explosive, highly toxic, and can be liberated from pools of stagnant water
   2. Irrespirable when greater than 10%
   3. Supports combustion with oxygen
2. What is the explosive range of hydrogen sulfide?
   1. 4.3% to 45.5%
   2. 12.5% to 74.2%
   3. 5% to 15% in at least 12.1 % oxygen
3. Which of the following is not true of sulfur dioxide?
   1. Explosive
   2. Highly toxic
   3. Highly soluble in water
4. Gas readings should be taken?
   1. Only when directed by the command center
   2. At all intersections, any dead end or face areas, and at the furthest point of travel in an entry or heading
   3. Where explosive gases are encountered
5. Accumulations of hydrogen in the mine atmosphere are dangerous because hydrogen?
   1. Is highly toxic
   2. Is highly soluble
   3. Is highly explosive
6. Line brattice is use to?
   1. Keep intake air from short circuiting
   2. Channel intake air from last open crosscut to the working face
   3. Regulate airflow in the intake split
7. Under what conditions might your team captain order your team back the fresh air base immediately?
   1. A fire that has been extinguished
   2. Damages to the permanent ventilation controls
   3. Hazardous roof that cannot be secured
8. What hazards should the team consider when fighting a mine fire directly?
   1. Explosive gases, heat, smoke, steam, toxic and asphyxiating gases
   2. CO above 5 ppm
   3. O2 greater than 19.5%
9. The first indication that an explosion has occurred are often similar to?
   1. An inundation of water
   2. A fan stoppage
   3. A large roof fall
10. Burning materials that give off extremely toxic gases in addition to carbon monoxide are?
    1. The coal seam
    2. Hydraulic fluids
    3. Neoprene and other synthetic rubber compounds
11. Foam generators are effective in controlling mine fires in that they?
    1. Cool the burning materials
    2. Are not effective if set up long distances from the fire area
    3. Elevate the oxygen reaching the fire area
12. Nonmetallic tubes or pipes are inserted in temporary and permanent seals for the purpose of?
    1. Checking for smoke
    2. Bleeding off excessive pressure from the sealed area
    3. Collecting air samples from the sealed area
13. The purpose of rescue team exploration is to?
    1. Determine conditions underground and locate missing miners
    2. Serve as a back up team in the command center
    3. Open doors in stoppings
14. The amount of coal dust suspended in the mine atmosphere is most important because?
    1. It can alter the explosive range of methane
    2. It can affect the specific gravity of oxygen
    3. Coal dust lowers the oxygen content
15. During exploration, the main fan?
    1. Should be turned on when the team encounters mine gases
    2. Turned off until needed
    3. Should be kept running and continually monitored