Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Team \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. 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. hydrogen is liberated from the coal dust.

2. Two gases that are highly soluble in water are:

a. hydrogen sulfide and hydrogen

b. nitrogen and sulfur dioxide

c. hydrogen sulfide and sulfur dioxide

3. Atmospheric pressure and temperature are important factors because they:

a. affect the rate of diffusion of a gas by ventilation

b. can cause false readings on gas detection instruments

c. lower oxygen content in the mine

4. Accumulations of hydrogen in the mine atmosphere are dangerous because hydrogen:

a. is highly toxic

b. is highly soluble in water

c. is highly explosive

5. Oxides of nitrogen can occur in a mine atmosphere:

a. when certain explosives are used

b. when diesel-powered equipment is being used

c. both of the above

6. The symbol for line brattice is:

a. 

b. 

c. 

7. Under what conditions would a team use a smoke tube to determine air velocities? Answer: The smoke tube is used to determine the direction and velocity of slow- moving air, below \_\_\_\_\_ feet per minute.

a. 2000.

b. 120.

c. 1000.

8. Non-sparking tools, nails, or spads must be used in mine atmospheres of \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_ methane to reduce the chance of a spark that could cause an ignition.

a. above 0.5 %

b. above 1%

c. above 2 %

9. The traverse method is used when:

a. Taking a reading with a smoke tube.

b. Taking a reading with an anemometer.

c. Erecting a temporary stopping.

10. As you explore, keep in mind that your first priority is \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_.

a. rescue of survivors.

b. recovery of the mine.

c. team safety.

11. A positive indication that a fire exists in a mine is:

a. Carbon monoxide and/or smoke in the return airways

b. Methane and carbon dioxide in the return airways

c. Lowered oxygen content in the return airways

12. The preferred type of hand-held extinguisher for teams is a dry chemical type that contains:

a. Sodium bicarbonate

b. water

c. Monoammonium phosphate

13. As you advance, report the condition of ventilation controls and \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_. If they are damaged, be specific as to what type of damage they’ve received and how extensive it is.

a. roof conditions.

b. gases encountered.

c. auxiliary fans.

14. Non-metallic tubes or pipes are inserted in temporary and permanent seals for the purpose of:

a. Checking for smoke

b. Bleeding off excess pressure from the sealed area

c. Collecting air samples from the sealed area

15. Flammable means:

a. volatile

b. burnable

c. incombustible