

Choose the correct answer to each of the following questions:

1. How do you protect yourself in an oxygen-deficient atmosphere? **(Page 6, Question 8, IG 115 Module 2 – Mine Gases)**
 - a. Wear an SCBA, which supplies you with oxygen
 - b. Wear an EBA 6.5, which supplies you with oxygen
 - c. Don your CSE SR-100
2. What is specific gravity? **(Page 6, Question 2, IG 115 Module 2 – Mine Gases)**
 - a. Specific gravity (or relative weight) of a gas is its weight in relation to an equal amount of normal air under the same temperature and pressure.
 - b. Specific gravity (or relative weight) of methane is its weight in relation to an equal amount of normal air under the same temperature and pressure.
 - c. Specific gravity (or relative weight) of a gas is its weight in relation to an unequal amount of normal air under the same temperature and pressure.
3. A gas that is normally found near the roof or in high places in the mine is said to have a low: **(Page 21, Question 16, IG 115 Module 2 – Mine Gases)**
 - a. Level of toxicity
 - b. Level of explosibility
 - c. Specific gravity
4. Carbon Monoxide is: **(Page 19, Question 3, IG 115 Module 2 – Mine Gases)**
 - a. A gas found in all mining operations.
 - b. A normal constituent of air
 - c. Detected during a mine fire or explosion.
5. Gases that are neither toxic nor explosive: **(Page 22, Question 20, IG 115 Module 2 – Mine Gases)**
 - a. Are not found in mine atmospheres
 - b. Are not dangerous.
 - c. Can be dangerous because they can displace oxygen
6. Under what conditions would a team use a smoke tube to determine air velocities? **(Page 39, Question 2, IG 115 Module 3 – Ventilation)**
 - a. The smoke tube is used to determine the direction and velocity of slow-moving air, below 200 feet per minute
 - b. The smoke tube is used to determine the direction and velocity of slow-moving air, below 120 feet per minute
 - c. The smoke tube is used to determine the direction and velocity of slow-moving air, below 220 feet per minute
7. Temporary stoppings/bulkheads built in a passageway should be placed at least 4 to 6 feet into the passageway in order that: **(Page 48, Question 8, IG 115 Module 3 – Ventilation)**
 - a. Sufficient Space is available to construct a permanent stopping/bulkhead
 - b. It will be protected from further explosions
 - c. It will not be affected by fire if a fire should spread to that crosscut

8. Air locks are used by mine rescue teams: **(Page 47, Question 6, IG 115 Module 3 – Ventilation)**
 - a. To establish a Fresh Air Base, when opening a door or knocking out a stopping/bulkhead behind which conditions are not definitely known, before closing a barricade in bad air behind which trapped miners may be located.
 - b. To establish a Fresh Air Base, when opening a door or knocking out a stopping/bulkhead behind which conditions are not definitely known, before opening a barricade in bad air behind which trapped miners may be located.
 - c. When opening a door or knocking out a stopping/bulkhead behind which conditions are not definitely known, before opening a barricade in bad air behind which trapped miners may be located.
9. What is required for a fresh air base? **(Page 56, Question 2, IG 115 Module 4 – Exploration)**
 - a. It must be situated where it is assured of positive ventilation, supply of fresh air, and a travel way to the surface for people and equipment.
 - b. It must have communications linking it to the fresh air base
 - c. It must be situated where it is assured of positive ventilation, supply of fresh air, and a travel way to the surface for people and equipment, and best if the area is well rock dusted and free of oil and grease
10. What equipment is a mine rescue team required to have? **(Page 65, Question 1, IG 115 Module 4 – Exploration)**
 - a. In addition to the normal underground mining gear (ie, hardhat, cap lamp, safety shoes, metal ID, and perhaps a watch), the team members wear breathing apparatus, and the team must have two detecting devices (or multi-gas detector) for each gas they may encounter.
 - b. In addition to the normal underground mining gear (ie, hardhat, cap lamp, safety shoes, metal ID, and perhaps a watch), the team members wear breathing apparatus, and the team must have two detecting devices (or multi-gas detector) for each gas they may encounter, and a communication system.
 - c. The team members wear breathing apparatus, and the team must have two detecting devices (or multi-gas detector) for each gas they may encounter, and a communication system.
11. What factors affect a team's rate of travel? **(Page 76, Question 2, IG 115 Module 4 – Exploration)**
 - a. Falls and obstructions, water, smoke, fatigue, amount/weight of equipment carried, degree of slope.
 - b. Falls and obstructions, water, smoke, fatigue, amount/weight of equipment carried.
 - c. Water, smoke, fatigue, amount/weight of equipment carried, degree of slope.
12. Gas readings should be taken: **(Page 83, Question 8, IG 115 Module 4 – Exploration)**
 - a. At all intersections, at any dead end or face area, at the furthest point of travel in any entry or heading
 - b. At all intersections or any dead end or face area
 - c. At all intersections and the furthest point of travel in any entry or heading

13. What are the clues that would aid in the mine rescue teams in locating survivors during a mine emergency? **(Page 120, Question 1, IG 115 Module 6 – Rescue of Survivors/Body Recovery)**
- Notes left in lunch buckets, arrows drawn on rib or rail, pounding sounds on a rail or pipe, SCSR covers or cases or discarded SCSR's, Miners personal items left or discarded, evidence of footprints in dust
 - Notes left in lunch buckets, arrows drawn on rib or rail, pounding sounds on a rail or pipe
 - SCSR covers or cases or discarded SCSR's, Miners personal items left or discarded, evidence of footprints in dust
14. Foam generators are effective in controlling mine fires in that they: **(Page 113, Question 7, IG 115 Module 5 –Fires/Firefighting/Explosions)**
- Limit the amount of oxygen reaching the fire area, cool the burning materials, and can be effective when set up long distances from the actual fire
 - Limit the amount of carbon monoxide reaching the fire area, cool the burning materials, and can be effective when set up long distances from the actual fire
 - Limit the amount of methane reaching the fire area, cool the burning materials, and can be effective when set up long distances from the actual fire
15. Non-metallic tubes or pipes are inserted in temporary and permanent seals for the purpose of: **Page 113, Question 10, IG 115 Module 5 –Fires/Firefighting/Explosions)**
- Checking for smoke
 - Bleeding off excess pressure from the sealed area
 - Collecting air samples from the sealed area