

Choose the correct answer to each of the following questions:

1. What explosive gases below may occur in a mine you may be called to work in? **(Page 17, Question 2, IG 115 Module 2 – Mine Gases)**
  - a. Carbon Monoxide, Methane, Carbon Dioxide
  - b. Carbon Monoxide, Methane, Hydrogen Sulfide
  - c. Carbon Dioxide, Nitrogen dioxide, sulfur dioxide
2. Mine rescue teams are required by federal law to have available? **(Page 22, Question 13, IG 115 Module 2 – Mine Gases)**
  - a. Four detecting devices for each gas normally encountered in the mines the team serves.
  - b. One detecting device for every gas listed as dangerous by the US Bureau of Mines
  - c. One detecting device for each team member.
3. A nontoxic gas can still be dangerous because it can: **(Page 22, Question 18, IG 115 Module 2 – Mine Gases)**
  - a. Increase oxygen content
  - b. Displace oxygen, burn, explode.
  - c. Causes pneumonia
4. How does an asphyxiating gas produce an oxygen-deficient atmosphere?: **(Page 25, Question 7, IG 115 Module 2 – Mine Gases)**
  - a. It displaces methane
  - b. It displaces and burns
  - c. It displaces oxygen
5. Why is it important for you to know about the solubility of certain gases in water? **(Page 26, Question 9, IG 115 Module 2 – Mine Gases)**
  - a. Gases dissolved in water can be liberated in large quantities when mine rescue teams disturb the water by walking through it or by beginning pumping operations.
  - b. Odor or taste of a gas dissolved in water can be liberated in large quantities.
  - c. Gases in the water is liberated in small quantities when mine rescue teams disturb the water
6. What is the purpose or function of a regulator? **(Page 31, Question 1, IG 115 Module 3 – Ventilation)**
  - a. Regulators are devices which, by their adjustment, can regulate airflow to meet the individual needs of each air split.
  - b. Regulators are devices which, by their adjustment, can regulate airflow to meet the individual needs of the return air split only.
  - c. Regulators are devices which, by their adjustment, can regulate airflow to meet the individual needs of each intake air split only.

7. Why would a team need to be able to build temporary stoppings quickly and effectively? **(Page 45, Question 1, IG 115 Module 3 – Ventilation)**
  - a. Re-ventilation is essential for the advancement of the command center and flushing out of dangerous gases, and in particular when miners are trapped it is very important to be able to advance the FAB quickly in order to rescue the miners.
  - b. Re-ventilation is essential for the advancement of the working section and flushing out of dangerous gases, and in particular when miners are trapped it is very important to be able to advance the FAB quickly in order to rescue the miners.
  - c. Re-ventilation is essential for the advancement of the FAB and flushing out of dangerous gases, and in particular when miners are trapped it is very important to be able to advance the FAB quickly in order to rescue the miners.
8. What information is usually transferred from the outgoing team to the backup team at the FAB? **(Page 80, Question 2, IG 115 Module 4 – Exploration)**
  - a. Scrubber readings, gas conditions, stoppings constructed.
  - b. Markings on mine maps, damages, distance traveled, gas conditions, roof and rib conditions.
  - c. Fan chart readings
9. Why is the debriefing session important? **(Page 80, Question 3, IG 115 Module 4 – Exploration)**
  - a. It provides the state troopers with more detailed information
  - b. It ensures all important findings are mentioned and instructs the team as to what they should or should not say to media representatives and others.
  - c. Provides time check the command center map
10. Seals in high volatile coal seams are often placed? **(Page 113 , Question 8, IG 115 Module 5 – Fires/firefighting/explosions)**
  - a. 100 foot from fire area
  - b. 1,000 feet or more from the fire area
  - c. 10,000 feet or more from the fire area
11. Class A fires are fires that? **(Page 93, Question 1, IG 115 Module 5 Fires/firefighting/explosions)**
  - a. Involve ordinary combustible material such as wood, p-plastics, paper and cloth.
  - b. Involve flammable or combustible liquids
  - c. Involve combustible metals
12. What hazards should the team consider when fighting a mine fire directly? **(Page 100, Question 4, IG 115 Module 5 – Fires/firefighting/explosions)**
  - a. Non-Toxic, Non-asphyxiating and explosive gases
  - b. Electrocutation, Oxygen deficiency, Non toxic gases
  - c. Electrocutation, toxic and asphyxiating gases, oxygen deficiency, explosive gases, heat, smoke, steam

13. Why should all waterlines, power cables, and track leading into a sealed area be severed or removed before sealing a fire area? **(Page 105, Question 3, IG 115 Module 5- Fires/firefighting/explosions)**
- a. Ensures that the sealed area is completely isolated from the other areas of the mine and possible ignition sources.
  - b. To use the track in other parts of the mine
  - c. Only remove waterlines if roof conditions permit
14. What are the two methods of re-ventilating a sealed fired area? **(Page 125, Question 1, IG 115 Module 6 –Rescue of Survivors/Body Recovery)**
- a. Blow and Exhausting
  - b. Progressive ventilation and direct ventilation
  - c. Auxillary fan and tubing
15. What is the disadvantage of progressive ventilation? **(Page 125, Question 1, IG 115 Module 6 – Rescue of Survivors/Body Recovery)**
- a. It is a slow process
  - b. It is a quick process
  - c. It can only be used if the mine was sealed on the surface