

1. The explosive range of methane/air mixture (normally 5-15%) will change if?
  - a. Certain other combustible gases are present
  - b. Coal dust is suspended in the atmosphere
  - c. There is less than 12.1% oxygen in the atmosphere
  - d. All of the above
  
2. An elevated concentration of nitrogen in mine air can be harmful because?
  - A. It can lower the oxygen content in the air
  - B. It is highly explosive
  - C. It is toxic
  - D. All of the above
  
3. Oxides of nitrogen can occur in a mine atmosphere?
  - a. When certain explosives are used
  - b. When diesel powered equipment is being used
  - c. When electric equipment produces arcs or sparks
  - d. All of the above
  
4. Acetylene would normally be found in a mine atmosphere where?
  - A. Diesel equipment is used
  - B. Methane has burned or exploded in air with a lowered oxygen content
  - C. Leakage has occurred from adjacent oil or gas wells
  - D. Battery charging stations are located
  
5. Two gasses that are highly soluble in water are?
  - a. Methane and acetylene
  - b. Hydrogen sulfide and hydrogen
  - c. Nitrogen and sulfur dioxide
  - d. Hydrogen sulfide and sulfur dioxide
  
6. Feeder – Small \_\_\_\_\_ through which methane or other gas escapes from coal
  - A. Holes
  - B. Cracks
  - C. Seams
  
7. Methane \_\_\_\_\_ – Sudden emission of methane from coal seam or surrounding rock
  - A. Outburst
  - B. Explosion
  - C. Liberation
  
8. Area (of an airway) – Average width multiplied by average height of an airway, expressed in \_\_\_\_\_
  - A. Cubic Feet
  - B. Square Feet
  - C. Dimension

9. Smoke Tube – Instrument used for determining direction and velocity of slow moving air (Below \_\_\_\_\_ - feet per minute)
- A. 100
  - B. 120
  - C. 130
10. Debriefing – Session held when a team returns to the surface after completing an assignment to review what they saw and did
- A. Mission
  - B. Recovery
  - C. Assignment
11. Rock bump – Sudden, violent expulsion of coal from one or more pillars, accompanied by \_\_\_\_\_ reports and earth tremors
- A. Loud
  - B. Quite
  - C. Sudden
12. Class \_\_\_\_ Fires – Fires that involve flammable or combustible liquids such as gasoline, diesel fuel, kerosene, and grease. They are best extinguished by excluding air or by special chemicals that affect the burning process.
- A. A
  - B. B
  - C. C
13. Refuge Chamber – An airtight, fire resistant room in a mine used as a method of refuge in emergencies by \_\_\_\_\_ unable to reach the surface
- A. Persons
  - B. Individuals
  - C. Miners
14. Rigor mortis – The progressive stiffening of the muscles that occurs several hours after death as a result of the coagulation of the \_\_\_\_\_ protein.
- A. Blood
  - B. Tissue
  - C. Muscle
15. Quadrant = Any of four quarters into which something is \_\_\_\_\_
- A. Halved
  - B. Divided
  - C. Multiplied

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