

Trainer Test Answers
Dalton, GA 2014

Name _____ Company _____

Team Name _____ Contest Position Number _____

Team Member Number _____

Directions: circle the letter preceding the correct answer to each of the following questions: Circle only one answer per question

1. When the barometer falls, this means:
 - a. **Gases will diffuse more quickly--- Module 2-page12**
 - b. The atmospheric pressure is rising
 - c. It is much easier for explosive gases to build up
 - d. Gases are squeezed into a smaller area

2. Methane is most explosive at what range
 - a. 5% to 15% with at least 12.1% oxygen
 - b. 9.5% to 12.5% with at least 12.1% oxygen
 - c. 5% to 10%
 - d. **9.5% to 10%--Module 2 – page 43**

3. Electrical malfunctions can produce oxides of nitrogen
 - a. **True Module 2 – page 35**
 - b. False

4. Any location on the body that is closer to the midline is referred to as:
 - a. **Medial - Brady 9th, page 89, question 4**
 - b. Recumbent
 - c. Lateral
 - d. Inferior

5. A bruise that is on then anterior thigh just above the knee could be described as _____ to the knee.
 - a. Distal
 - b. **Proximal - Brady 9th, page 89, question 4**
 - c. Lateral
 - d. Medial

6. An Emergency Medical Responder should immediately move a patient EXCEPT when the patient:
 - a. Has a blocked airway
 - b. Is bleeding severely
 - c. Has mild shortness of breath - Brady 9th, page 112, question 2**
 - d. Is in cardiac arrest

7. The recommended method for opening the airway of a patient with a possible neck or spine injury is the _____ maneuver.
 - a. Jaw-thrust - Brady 9th, page 166, question 3**
 - b. Mouth-to-nose
 - c. Abdominal thrust
 - d. Head-tilt/chin-lift

8. Which one of the following improved ventilation delivered by way of a bag-mask device?
 - a. Inserting an oropharyngeal airway - Brady 9th, page 166, question 9**
 - b. Applying suction for four to six minutes
 - c. Alternating chest thrusts and squeezing the bag
 - d. Combining finger sweeps with a mouth-to-mouth technique

9. You are caring for a patient complaining of mild shortness of breath and have her on a nasal cannula at 6 liters per minute. What oxygen concentration are you delivering to the patient?
 - a. 25%
 - b. 29%
 - c. 33%
 - d. 45% - Brady 9th, page 184, question 184**

10. You are caring for a patient with an open chest wound and have covered the wound with an occlusive dressing. The patient becomes increasingly short of breath. You should:
- Add another dressing to the wound
 - Release the dressing to allow air to escape - Brady 9th, page 477, question 6**
 - Apply more pressure to the wound
 - Remove the dressing altogether
11. New miners having no underground mining experiences shall receive no less than 40 hours of training if they are to work underground.
- True - Mine Act 1977 Section 115(a)(1)**
 - False
12. A Miner who has not received the requisite training under Section 115 of the Mine Safety and Health Act of 1977 shall be withdrawn from the mine by order, declaring the miner a hazard to himself and others, issued by an Authorized Representative of the Secretary of Labor.
- True - Mine act 1977 Section 104(g)**
 - False
13. The first of the annual physical examinations for mine rescue team members shall be completed within 90 days.
- True
 - False - 30 CFR 49.17(a)**
14. Authorized representatives of the Secretary shall have the right of entry to inspect any designated mine rescue station.
- True - 30CFR 49.15(d)**
 - False

15. Each mine rescue station shall be provided with a portable supply of liquid air, liquid oxygen, pressurized oxygen, or oxygen generating chemicals, and carbon dioxide absorbent chemicals, as applicable to the supplied breathing apparatus and sufficient to sustain each team for 8 hours while using the breathing apparatus during rescue operations.
- a. **True - 30CFR 49.16(a)(2)**
 - b. False
16. The most accurate measurement of air velocity using a smoke tube is obtained by releasing smoke in the center of the airway
- a. True
 - b. **False – Module 3 – page 30**
17. The battery icon on the MX6 gas detector at >50% is what color?
- a. **Blue Pg. 12 MX6 operations guide rev 6**
 - b. Yellow
 - c. Red
18. When calibrated the MX6 using methane concentrations less than 5% of volume, reading accuracy of the infrared methane sensor may not be guaranteed to be better than _____?
- a. +/- 15%
 - b. **+/- 20% Pg. 6 MX6 operations guide rev 6**
 - c. +/- 25%
19. Only MSHA approved instructors shall conduct required mine (rescue training) courses.
- a. **True - 30 CFR 49.8(d)**
 - b. False
20. Mine rescue SCBA's will be inspected and tested at intervals not exceeding 30 days.
- a. **True - 30 CFR 49.6(b)(1)**
 - b. False

21. During mine rescue contest's gas field testing Nitrogen Oxide readings are considered incorrect if within plus or minus 5%.
- True - 2014 MNM Mine Rescue Contest Rules, Page 39**
 - False
22. During the mine rescue contest's field competition your team encounters placards marked "intense heat" and/or "fire out of control". The team decides to regulate the air flow so as to restrict air to the fire and prevent its further advance. This is considered a ventilation change.
- True
 - False - 2014 MNM Mine Rescue Contest Rules, Page 33**
23. Atmospheric pressure and temperature are important factors because they:
- affect the rate of diffusion of a gas by ventilation - Module 2- page 71**
 - can cause false readings on gas detection instruments
 - lower oxygen content in the mine
 - all of the above
24. The traverse method is used when:
- Taking a reading with a smoke tube.
 - Taking a reading with an anemometer. - Module 3 - page 49**
 - Erecting a temporary bulkhead.
 - None of the above.
25. In advancing a fresh air base, after you put up the new air lock, the team should:
- Come out of the mine.
 - Perform gas tests in all dead ends and high places between the old and new fresh air base to ensure that all gases have been flushed from the area. Module 4 - page 49**
 - Proceed beyond the new fresh air base to explore and let other workers check for any gases in the area between the old and new fresh air bases.
 - Shut off and remove your apparatus since you are in fresh air and will no longer need it.

26. The preferred type of extinguisher for teams is a dry chemical type that contains:
- Sodium bicarbonate
 - Potassium chloride
 - Carbon tetrachloride
 - d. Monoammonium phosphate - Module 5 - page 47**
27. Burning materials that give off extremely toxic gases in addition to carbon monoxide are:
- Timbers
 - Hydraulic fluids
 - c. Neoprene and other synthetic rubber compounds - Module 5 - 47**
 - All of the above
28. The three preconditions for opening a sealed fire area are; low oxygen, no carbon monoxide, sufficiently cooled conditions.
- a. True - Module 7 - page 11**
 - False
29. An elevated concentration of carbon dioxide in mine air can be harmful because:
- it is highly explosive
 - b. it increases the breathing rate - Module 2 - page 69**
 - it is highly toxic in small concentrations
 - all of the above
30. Oxides of nitrogen can occur in a mine atmosphere:
- when certain explosives are used
 - when diesel-powered equipment is being used
 - when electric equipment produces arcs or sparks
 - d. all of the above - Module 2 - page 69**