

2018 National Metal and Nonmetal Mine Rescue Contest

Team Trainer Competition Written Test

Directions:

- 1. Find the correct answer to each of the questions.**
- 2. Select only one answer per question.**
- 3. Then, fill in the corresponding circle on the answer sheet for each numbered question.**

Good Luck!



July 23, 2018

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1. Sulfur dioxide may be produced by blasting in sulfide ores and by fires containing iron pyrite.
 - A. True
 - B. False
2. The specific gravity of butane is 1.5625.
 - A. True
 - B. False
3. Acetylene is colorless and tasteless. It has a slight _____ odor.
 - A. Onion
 - B. Sour Cream and Onion
 - C. Garlic
 - D. None of the above
4. Smoke may irritate your lungs when you inhale it, it is normally considered to be an asphyxiant.
 - A. True
 - B. False
5. If the weight of a gas you're testing for is _____ than normal air, you'll know to test for it near the back of the mine.
 - A. Heavier
 - B. Lighter
 - C. None of the above
6. If the fan goes down while you're underground, and hazardous conditions ensue, you may be recalled from the mine.
 - A. True
 - B. False
7. The basic principle underlying mine ventilation is that air always moves from _____ pressure regions to _____ pressure regions.
 - A. Low to High
 - B. High to Low
 - C. East to West

8. The teams map person is responsible for marking down information on the map as the team explores and assesses ventilation.
 - A. True
 - B. False

9. Porous stoppings such as concrete block stoppings are usually plastered on the ____ pressure side to reduce air leakage.
 - A. Low
 - B. Surface
 - C. High
 - D. None of the above

10. Check curtains are designed to close manually after you have passed through them so that they continue to direct air to the working place.
 - A. True
 - B. False

11. According to the 2017-2018 Metal and Nonmetal Mine Rescue Contest Rules, If placards have not been changed after ____ seconds, teams must assume that their actions were not successful.
 - A. 10
 - B. 20
 - C. 30
 - D. 15

12. According to the 2017-2018 Metal and Nonmetal Mine Rescue Contest Rules, the team captain will only be required to start the timing device and write down the team position before receiving the problem and the maps.
 - A. True
 - B. False

13. According to the 2017-2018 Metal and Nonmetal Mine Rescue Contest Rules, regulating airflow to control a fire is also considered a ventilation change.
 - A. True
 - B. False

14. According to the 2017-2018 Metal and Nonmetal Mine Rescue Contest Rules, once a post has been set to correct and support an unsafe roof condition, it can only be removed by the team captain.
 - A. True
 - B. False

15. According to the 2017-2018 Metal and Nonmetal Mine Rescue Contest Rules, “Caved Tight” means ground caved in to prevent access and allows very little ventilation flow.
 - A. True
 - B. False

16. According to Title 30 CFR Part 49.2, every operator of an underground mine shall establish at least ____ mine rescue teams which are available at all times when miners are underground or enter into an arrangement for these services.
 - A. Four
 - B. Three
 - C. Two
 - D. One

17. According to Title 30 CFR Part 49.6 (a) (5), each mine rescue station shall be provided with at least six self-contained breathing apparatus, each with a minimum of 4 hour capacity.
 - A. True
 - B. False

18. According to Title 30 CFR Part 49.6 (a) (6), gas detectors must measure concentrations of Carbon Monoxide from 0.0 parts per million to at least ____ parts per million.
 - A. 900
 - B. 999
 - C. 9,000
 - D. 9,999

19. According to Title 30 CFR Part 49.8 (c), a mine rescue team member will be ineligible to serve on a team if more than ____ hours of training is missed during one year, unless additional training is received to make up for the time missed.
 - A. 4
 - B. 8
 - C. 16
 - D. None of the above

20. According to Title 30 CFR Part 49.8 (g), a record of training of each team member shall be on file at the mine rescue station for a period of two years.
 - A. True
 - B. False

21. Body substance isolation (BSI) precautions are specific steps that help to minimize exposure to a patient’s blood and body fluids.
 - A. True

B. False

22. The _____ is an imaginary vertical line that divides the body into right and left halves.
- A. Proximal
 - B. Inferior
 - C. Midline
 - D. Superior
23. The role of EMR (Emergency Medical Responders) during a MCI (Multiple-Casualty Incident) depends on:
- A. When they arrive at the scene
 - B. The type of agency for whom they are working
 - C. Their specific level of training
 - D. All of the above
24. When using the lift-and-slide technique, this maneuver requires a minimum of five and often six rescuers.
- A. True
 - B. False
25. The left ovary (female) can be found in the _____ quadrant.
- A. Left Upper
 - B. Right Upper
 - C. Right Lower
 - D. Left Lower
26. Wheeled extinguishers can weigh from _____ to _____ pounds.
- A. 75 to 400
 - B. 2 to 55
 - C. 75 to 350
 - D. 2 to 50
27. To effectively and quickly put out the fire, you should direct the stream of dry chemical to about 6 inches ahead of the flame edge.
- A. True
 - B. False
28. All foam generators are water driven.
- A. True
 - B. False

29. If heat, smoke, and ventilating air currents permit, water is the most desirable and efficient means of fighting a fire, even if it's an electrical fire.
- A. True
 - B. False
30. Electric shock and electrocution are hazards to firefighters using water, foam, or other conductive agent to fight a fire.
- A. True
 - B. False

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ANSWER KEY

- | | | |
|--------------|----------------------|--|
| 1. A | pg. 2-21 | MSHA Publication 3027 |
| 2. B | pg. 2-23 | MSHA Publication 3027 |
| 3. C | pg. 2-24 | MSHA Publication 3027 |
| 4. B | pgs. 2-26 | MSHA Publication 3027 |
| 5. B | pg. 2-6 | MSHA Publication 3027 |
| 6. A | pg. 3-4 | MSHA Publication 3027 |
| 7. B | pg. 3-5 | MSHA Publication 3027 |
| 8. A | pg. 3-5 | MSHA Publication 3027 |
| 9. C | pg. 3-8 | MSHA Publication 3027 |
| 10. B | pg. 3-9 | MSHA Publication 3027 |
| 11. D | pg. 21 | 2017 - 2018 National MNM Mine Rescue Contest Rules |
| 12. B | pg. 24 | 2017 - 2018 National MNM Mine Rescue Contest Rules |
| 13. B | pg. 33 | 2017 - 2018 National MNM Mine Rescue Contest Rules |
| 14. B | pgs. 35, 37, 38 & 39 | 2017 - 2018 National MNM Mine Rescue Contest Rules |
| 15. B | pg. 113 | 2017 - 2018 National MNM Mine Rescue Contest Rules |
| 16. C | pg. 259 | 30 CFR Part 49.2 |
| 17. B | pg. 262 | 30 CFR Part 49.6(a)(5) |
| 18. D | pg. 262 | 30 CFR Part 49.6(a)(6) |
| 19. B | pg. 263 | 30 CFR Part 49.8(c) |
| 20. B | pg. 264 | 30 CFR Part 49.8(g) |
| 21. A | pg. 36 | EMR 10 th Edition |
| 22. C | pg. 57 | EMR 10 th Edition |
| 23. D | pg. 564 | EMR 10 th Edition |
| 24. A | pg. 116 | EMR 10 th Edition |
| 25. D | pg. 62 | EMR 10 th Edition |
| 26. C | pg. 5-6 | MSHA Publication 3027 |
| 27. A | pg. 5-7 | MSHA Publication 3027 |
| 28. B | pg. 5-9 | MSHA Publication 3027 |
| 29. B | pg. 5-14 | MSHA Publication 3027 |
| 30. A | pg. 5-14 | MSHA Publication 3027 |