

Southern Regional Mine Rescue Contest
New Iberia, LA
May 2016
Written Test – Field Competition

1. The _____ is the hub of rescue and recovery operations and is typically staffed and controlled by a mine emergency “command group”.
 - a. Security
 - b. Fresh Air Base
 - c. Mine Managers Association
 - d. Command Center (Modules 1-3)
2. A notification plan is a plan for notifying necessary personnel when there is an emergency at the mine.
 - a. True (Modules 1-14)
 - b. false
3. Backup team is defined as the rescue team stationed at the fresh air base a “backup” for the working team beyond the command center.
 - a. True
 - b. False (Modules 1-14)
4. Re-ventilation after an explosion in a multi-level, room-and-pillar mine is usually accomplished by progressive ventilation.
 - a. True
 - b. False (Modules 7-10)
5. The objective of reestablishing ventilation after an explosion is to rid the mine of explosive or potentially explosive gas mixtures and restore normal ventilation and normal amounts of oxygen to all workings without propagating another explosion.
 - a. True (Modules 7-10)
 - b. False
6. A disrupted ventilation system could result in an oxygen-deficient atmosphere and/or a buildup of toxic or explosive gases.
 - a. True (Modules 2-3)
 - b. False
7. Gas detector requirements under 30 CFR 49.6(a)(6) states that gas detectors must measure concentrations of methane from _____ percent to _____ percent of volume.
 - a. 0.1,100
 - b. 0.0,99
 - c. 0.0,100 (Modules 2-3)
 - d. None of the above
8. A self-contained breathing apparatus (SCBA) will protect you from harmful if inhaled toxic gases, as long as your face-to-facepiece seal is tight even if the unit is not working properly.
 - a. True
 - b. False (Modules 2-10)
9. What is the specific gravity of Oxygen (O₂).
 - a. 1.1045
 - b. 1.0154
 - c. 1.1054 (Modules 2-13)
 - d. 1.1145
10. Oxygen is the second largest component of normal air?
 - a. True (Modules 2-14)
 - b. False

11. When oxygen content of air drops to about ____ %, you'll begin to breath faster and deeper?
 - a. 19%
 - b. 18%
 - c. 17% (Modules 2-14)
 - d. None of the above
12. Nitrogen is toxic and in above-normal concentrations it acts as an asphyxiant.
 - a. True
 - b. False (Modules 2-14)
13. _____ is the largest component of normal air.
 - a. Oxygen
 - b. Argon
 - c. Carbon Dioxide
 - d. None of the above (Modules 2-14)
14. Carbon Dioxide is relatively light, CO₂ will be found in greater concentrations along the roof in the mine.
 - a. True
 - b. False (Modules 2-15)
15. The explosive range for Carbon Monoxide in normal air is 12.5% to 74.2%.
 - a. True (Modules 2-16)
 - b. False
16. Under no circumstances do you ever alter ventilation without orders to do so from the _____.
 - a. Team Captain
 - b. Commander in Chief
 - c. Command Center (Modules 3-3)
 - d. Fresh Air Base Attendant
17. In many cases. One main fan is used to ventilate the entire mine.
 - a. True (Modules 3-4)
 - b. False
18. Ventilation controls force the air to move in certain directions and at certain velocities so that it reaches all levels or sections of the mine.
 - a. True (Modules 3-4)
 - b. False
19. The basic principle underlying mine ventilation is that air always moves from low pressure regions to high pressure regions.
 - a. True
 - b. False (Modules 3-5)
20. With regards to Mechanical ventilation, the greater the pressure difference a fan creates, the slower the flow of air.
 - a. True
 - b. False (Modules 3-5)
21. _____ are not meant to be ventilation controls, but if a _____ is propped open, it can affect airflow and may cause intake air to short circuit into the exhaust. .
 - a. Permanent Stoppings
 - b. Temporary Stoppings
 - c. Man Doors (Modules 3-9)
 - d. Check Curtain
22. Before anyone goes underground, when examining the mine openings, tests should be made for the presence of gases and someone should make ventilation checks.
 - a. True (Modules 4-5)
 - b. False

23. Whenever possible, it's best to enter the mine by way of the safest exhaust airway.
 - a. True
 - b. False (Modules 4-5)
24. Underground, existing refuge chambers are sometimes used as fresh air bases.
 - a. True (Modules 4-7)
 - b. False
25. According to law, the team must also have a portable or sound-powered communication system. The system must be at least _____ feet long.
 - a. 500
 - b. 1500
 - c. 2000
 - d. None of the above (Modules 4-13)
26. Before your team proceeds to the fresh air base, it's the team trainer's responsibility to make sure the team, its equipment, and its apparatus are ready to go.
 - a. True
 - b. False (Modules 4-17)
27. One reason for "team checks" is to give the team a chance to rest.
 - a. True (Modules 4-20)
 - b. False
28. "Tying in" is the process by which you systematically explore all crosscuts and adjacent entries as you advance so that you are never forward of an unexplored area.
 - a. True (Modules 4-24)
 - b. False
29. Smoke so dense that it conceals the back and sides and other reference points you normally use to guide you from place to place can cause you to experience what's known as _____.
 - a. Spiritual disorientation
 - b. Spiral disorientation
 - c. Spatial disorientation (Modules 4-25)
 - d. None of the above
30. It's recommended that you don't travel through water that is more than knee deep.
 - a. True (Modules 4-26)
 - b. False