Choose the correct answer to each of the following questions:

1. Normal air contains approximately what percent oxygen?
2. 15%
3. 21%
4. 31%
5. 79%
6. Carbon monoxide is:
7. a gas found in all mining operations
8. a normal constituent of air
9. detected during a mine fire or explosion
10. a product of the breathing process
11. Accumulations of hydrogen in the mine atmosphere are dangerous because hydrogen:
12. is highly toxic
13. is highly soluble in water
14. is highly explosive
15. gives off a suffocating odor
16. Two gases that are highly soluble in water are:
17. methane and acetylene
18. hydrogen sulfide and hydrogen
19. nitrogen and sulfur dioxide
20. hydrogen sulfide and sulfur dioxide
21. The type of coal mine where the greatest amount of methane would be likely to be found would be a:
22. drift mine with tight and compact adjoining strata
23. drift mine with loose or broken adjoining strata
24. shaft mine with tight and compact adjoining strata
25. shaft mine with loose or broken adjoining strata
26. Mine rescue teams should alter existing ventilation:
27. Only when directed to do so by the Command Center.
28. When the team captain decides to do so.
29. When they encounter high concentrations of methane
30. When they encounter smoke.
31. “Pogo sticks” are devices that are used:
32. To test the roof and rib
33. To measure air velocity
34. To determine the direction of airflow.
35. As supports on which brattice cloth can be hung
36. Prior to rescue team exploration, the first step to take after a disaster is to:
37. Examine all mine openings.
38. Establish a Fresh Air Base
39. Proceed as far as possible into the mine without apparatus
40. None of the above
41. Prior to a mine rescue team passing through a door or stopping/bulkhead behind which conditions are not definitely known, they should:
42. Ask the Fresh Air Base to send in the backup team
43. Erect an air lock to prevent the mixing of atmospheres
44. Open the door or stopping/bulkhead, and wait at least 10 minutes so that any harmful gases are diffused
45. Never enter such areas
46. A positive indication that a fire exists in a mine is:
47. Carbon monoxide and/or smoke in the return airways
48. Methane and carbon dioxide in the return airways
49. Lowered oxygen content in the return airways
50. A disruption in normal ventilation
51. The preferred type of hand-held extinguisher for teams is a dry chemical type that contains:
52. Sodium bicarbonate
53. Potassium chloride
54. Carbon tetrachloride
55. Monoammonium phosphate
56. If miners are missing after a fire or an explosion, what is critical information that your team will need during the briefing?
57. Production reports from previous shift
58. Section or sections where they were working
59. The responsible person list the day of the incident
60. What type of transportation does the miners use
61. What are the usual procedure when a body is encountered during exploration?
62. Mark location in mine
63. Remove personal belongings and put in safe place
64. Move body to a different known location for further transport
65. Wait on back-up team to arrive before doing anything
66. Discuss the task normally involved in recovering a mine or section of a mine following an explosion, fire, or other mine disaster.
67. Loading first cut of coal after event
68. Doing permissibility on equipment
69. Securing roof and ribs
70. Measure face depths for accurate measurements
71. Discuss how a mine rescue team could remove standing water from an unventilated area.
72. Set a permissible pump in water
73. Use a shielded cable to the pump only when conditions are less than favorable.
74. Use a steel or equivalent discharge line from the pump to protect from possible rock falls
75. If gas conditions permit, the team can pump the water using non-conducting suction lines and a pump set up in fresh air