

2023 Post 7 NMRA Mine Rescue Contest Technician Team Test

Team Name: _____

Contestant Name: _____

What type of power source does the Industrial Scientific Hybrid MX-6 use.

Rechargeable AA batteries

Rechargeable Lithium-ion batteries

Rechargeable Alkaline batteries

Oxides of nitrogen can occur in a mine atmosphere:

when certain gases are used

when diesel-powered equipment is being used

when equipment produces certain combustible material

A smoke tube is a device used to:

Determine oxygen content of the mine atmosphere.

Determine direction and velocity of airflow.

Detect carbon monoxide.

4. Gases that are neither toxic nor explosive:

are not found in mine atmospheres

are not dangerous

can be dangerous because they can displace oxygen

5. Air locks are used by mine rescue teams:

To establish a Fresh Air Base.

When breaching seals to rescue trapped miners.

Before opening a temporary stopping in good air behind which trapped miners may be cated.

6. A nontoxic gas can still be dangerous because it can:

displace oxygen

smoke

exhaust air

7. Prior to each daily use what is recommended.

Bump Test

Calibration

Change sensor

8. Temporary stoppings/Bulkheads built in a passageway should be placed at least 4 to 6 feet into the passageway in order that:

Sufficient space is available to construct a permanent stopping/Bulkheads

It will be protected from further explosions.

It will not be affected by fire if a fire should spread to that crosscut.

9. Used for alarming, warnings, and the optional confidence indicator. There are two levels of audio gas alarms based on the frequency of the beeps and the length of delay between beeps.

Low-level, High-level

Short level, Long Level

Medium Level, Standard level

10. A gas that is normally found near the roof or in high places in the mine is said to have a low:

level of toxicity

level of explosivity

specific gravity

11. Mine rescue teams are required by Federal law to have available:
one detecting device for every gas listed as dangerous by the U. S. Bureau of Mines
one detecting device for each gas normally encountered in the mine(s) the team serves
four detecting devices for each gas normally encountered in the mine(s) the team serves

12. Characteristics of hydrogen sulfide include:

re-usable

highly toxic

can be liberated from drinking water

13. What is Located on the back of the MX6 for hands-free gas monitoring.

Belt Strap

Holster

Clip/ Connector

14. An elevated concentration of carbon dioxide in mine air can be harmful because:

it is highly explosive

it increases the breathing rate

it is highly toxic in small concentrations

15. An elevated concentration of nitrogen in mine air can be harmful because:

it can lower the oxygen content of the air

it is highly explosive

it is highly toxic