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 **TEAM #**

 **WRITTEN TEST**

**Questions taken from the following sources:**

**Mine Rescue Team Training: Coal Mines MSHA 3028 (formerly IG7)**

**Don Mitchell, Mine Fires**

**2013 Mine Rescue Rules**

**First Aid SM3**

**Team Name**

1. The relationship between hydrogen and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is important, particularly to miners \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_or \_\_\_\_\_\_\_\_\_\_\_\_\_\_an area in which fire is believed to have been \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Don Mitchell: Interpreting The State of The Fire**

1. Reactions between \_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ produce \_\_\_\_\_\_\_\_\_\_\_. Where water is being applied from \_\_\_\_\_\_\_\_\_\_, this will not be \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to miners fighting the fire; the quantities of \_\_\_\_\_\_\_\_\_\_\_ so-produced will be small compared to the quantities liberated and distilled from the coal plus all of the other volatiles and \_\_\_\_\_\_\_\_\_\_\_\_\_.

**Don Mitchell: Interpreting The State of The Fire**

1. To minimize the effects of pressure, from \_\_\_\_\_\_\_\_\_as well as \_\_\_\_\_\_\_\_\_, stoppings between common entries should be breach (holed through) in at least one, preferably \_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, crosscuts inby where the seals are to be \_\_\_\_\_\_\_\_\_\_.

**Don Mitchell: Sealing**

1. Miners building seals and \_\_\_\_\_\_\_\_\_\_\_\_\_ returns should become exceptionally sensitive to how the air is \_\_\_\_\_\_\_\_\_\_\_. Is it a \_\_\_\_\_\_\_\_\_\_\_ (smooth) flow or does it seem to \_\_\_\_\_\_\_\_\_\_\_(breathing as if it inhales as well as exhales- flows out)? \_\_\_\_\_\_\_\_\_\_\_\_ forecast explosions. Falls of roof can cause pulsations.

**Don Mitchell: Sealing**

1. Oxides of nitrogen are produced by \_\_\_\_\_\_\_\_\_\_\_\_\_ and by the \_\_\_\_\_\_\_\_\_\_\_\_\_and burning of \_\_\_\_\_\_\_\_\_\_\_\_\_\_. They are also emitted from the \_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ engines. In the presence of electrical arcs or sparks, nitrogen in the air combines with \_\_\_\_\_\_\_\_\_\_\_\_\_ (oxidizes) to form oxides or nitrogen.­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­

**Mine Rescue Team Training: Coal Mines- Oxides of Nitrogen**

**6.** Hydrogen is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gas. Air containing \_\_\_\_\_\_\_\_\_\_to \_\_\_\_\_\_\_\_\_\_\_\_\_ percent hydrogen will explode even when there is as little as \_\_\_\_\_\_\_\_\_\_ percent oxygen present. Very violent explosions are possible when air contains more than \_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_ percent hydrogen. The presence of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ quantities of hydrogen greatly increases the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ range of other gases.

**Mine Rescue Team Training : Coal Mines- Hydrogen**

**7.** If the briefing officer's designated location is \_\_\_\_\_\_\_\_\_\_\_\_\_ , irrespirable atmospheres can flow \_\_\_\_\_\_\_\_\_\_\_\_\_\_the location when the briefing officer is at the \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_. However, if the briefing officer is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the designated location, irrespirable atmospheres \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ flow across the designated location.

**2013 Mine Rescue Rules**

**8**. If a team finds a patient(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_ an area of unsafe roof and has

 the necessary roof support available to recover the patient(s), the team \_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_the patient. If a team subsequently finds necessary roof support to recover the patient(s), the team must \_\_\_\_\_\_\_\_\_\_\_\_\_ (prior to the No. 5 team member passing the roof support), \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the roof support and recover the patient(s). The team may perform any function during this team stop; however, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will not be allowed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , timber unsafe roof or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ water unless \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to recover the patients(s).

 **2013 Mine Rescue Rules**

**9**. Shock can accompany any serious injury: blood loss, breathing impairment, heart

 failure, burns,etc. Shock can kill; therefore, treat as soon as possible and continue until medical

 aid is available. Signs/symptoms of shock are shallow \_\_\_\_\_\_\_\_\_\_\_\_\_, rapid and \_\_\_\_\_\_\_\_\_\_\_\_\_ pulse, nausea, \_\_\_\_\_\_\_\_\_\_\_\_\_\_,vomiting,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pale \_\_\_\_\_\_\_\_\_\_\_\_\_ skin, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_confusion, drooping \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and dilated pupils.

 **First Aid SM3**

**10.** Signs and symptoms for spinal fracture in an unconscious patient:

 -Stroke the \_\_\_\_\_\_\_\_\_\_\_\_\_\_of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_with a pointed object; if the spinal cord

 is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the feet will react.

 -Stoke the palms of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_with a pointed object; if the \_\_\_\_\_\_\_\_\_\_\_\_\_ cord is

 undamaged, the hands will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**First Aid SM3**