Midwest Consortium
40-Hour Technician Pretest
Version B (0603)

___ 1. Which of the following actions should you take if a direct-reading instrument indicates 10% of the Lower Explosive Limit (LEL)?
   a. Continue to work, using spark-proof tools.
   b. Consult the MSDS.
   c. Immediately call your supervisor over and tell him/her.
   d. Leave the work area immediately.

___ 2. If a chemical gets on your hands or arms, which of the following health effects could it cause?
   a. All of the following could be health effects from the exposure.
   b. You may get a rash from the exposure.
   c. Your blood may be affected by the exposure.
   d. One of your body organs—like a kidney or a liver—may be affected by the exposure.

Match the color of the placard with the type of hazard it describes.

___ 5. White c. Flammable.
       d. Oxidizer.

___ 6. Which of the following responsibilities are conducted at the Technician level?
   a. All of the following are conducted at the Technician level.
   b. Perform assigned role in the incident command system.
   c. Determine decontamination procedures at an incident.
   d. Develop a site safety and control plan.
7. An oxidizer is a substance that:
   a. Passes directly from a gas to a solid and condenses to form solid crystals.
   b. Lowers the level of oxygen in a reaction to prevent fires.
   c. Readily produces fire in the presence of a fuel.
   d. Slows the process of a chemical reaction.

8. The characteristic ionization potential (expressed in electron volts [eV]) of a contaminant is measured with which of the following types of monitors?
   a. PID.
   b. A combustible-gas indicator.
   c. Personal charcoal badge.
   d. Goniometer.

Indicate whether the following elements should be part of a permit-required confined-space program—Yes (Y) or No (N).

9. Y N The confined space must be monitored before you enter it and during work activity.

10. Y N There must be a communication system in place prior to entry.

Indicate whether each of the following statements about chemical-protective clothing (CPC) is true (T) or false (F).

11. T F Most CPC suits “breathe,” which will reduce heat build-up when used in hot weather.

12. T F Almost all CPC suits provide protection from fire for the responder.

13. The NIOSH Pocket Guide tells you that mercury has a specific gravity of about 13.6 and a solubility of 0.0%. The mercury has spilled into a neighborhood stream. How would you plan to contain the mercury spill from going further downstream?
   a. All of the following are correct.
   b. With a floating boom.
   c. With a sand bag dike and an overflow dam.
   d. With AFFF foam.
Use the table provided below to answer Question 14.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>PEL in ppm</th>
<th>IDLH in ppm</th>
<th>Vapor Pressure (mmHg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allyl chloride</td>
<td>1</td>
<td>300</td>
<td>295</td>
</tr>
<tr>
<td>Phenol</td>
<td>5</td>
<td>250</td>
<td>0.36</td>
</tr>
<tr>
<td>Sulfur pentafluoride</td>
<td>.025</td>
<td>1</td>
<td>561</td>
</tr>
<tr>
<td>Vinlyltoluene</td>
<td>100</td>
<td>5,000</td>
<td>1.1</td>
</tr>
</tbody>
</table>

14. Given only the information above, name the chemical posing the greatest potential inhalation hazard for emergency responders entering a confined space.
   a. Allyl chloride.
   b. Phenol.
   c. Sulfur pentafluoride.
   d. Vinyltoluene.

15. A drum filled with oleum (fuming sulphuric acid) is punctured accidentally. An acid mist is forming. What is the lowest level of protection you should have on to safely work on the drum?
   a. Level A.
   b. Level B.
   c. Level C.
   d. Level D.

16. Which of the following types of monitors is least useful if you were monitoring for an explosive environment?
   a. Oxygen meter
   b. Flame Ionization Detector.
   c. LEL meter.
   d. Combustible-gas indicator.
17. You are wearing Level B protection. What is the last piece of chemical-protective clothing that should be taken off before you exit the decontamination line, assuming you are wearing all the four listed?

   a. Inner gloves.
   b. Respirator facepiece.
   c. Disposable booties.
   d. Inner coveralls.

18. Which of the following events would be considered non-compliant with OSHA requirements for the plant’s Emergency Response Plan (ERP)?

   a. The ER team skipped debriefing after a minor incident.
   b. A new production process was brought on-line in March 1998 and the ERP was revised within thirty days.
   c. The plant’s new incident commander was appointed and trained in April 1999 and the ERP was revised immediately.
   d. A new chemical has been accepted by the QA, and the ER team immediately receives emergency response training for handling this new chemical.

19. Propane has an LEL of 2.1% and a UEL of 9.5%. In a confined space, you detect a propane level of 20% by volume of air. There are no other chemicals present in the unventilated confined space, and no movement is detected in the air. Which of the following is most correct about the confined space?

   a. An explosion of the propane gas is very likely to happen at the entrance to this confined space.
   b. The percent of propane by volume of air must be 50% or higher before we have to worry about an explosion in this situation.
   c. An explosion proof ventilator is not required to ventilate this space.
   d. The percentage of propane by volume of air has nothing to do with the chance of an explosion.

20. Which of the following actions is implemented at every emergency response?

   a. Follow directions from the Incident Commander.
   b. Check if workers in the area might have any symptoms from the release.
   c. Check if the plant’s ventilation system could be spreading the vapor.
   d. Check the MSDS to see if the chemical is reactive.