

User Name:

Advisor Name:

1. You need to request an ambulance for someone who has been injured in the cleanroom. What number do you call?
  - A. 800-222-1222
  - B. 911
  - C. 2123
  - D. 5318
  
2. You hear the fire alarm and see flashing white lights. What do you do?
  - A. Evacuate the building immediately and meet in parking lot 1 at DP.
  - B. Continue with your experiment until you reach a stopping point, then de-gown and leave the building.
  - C. Immediately de-gown and leave the building to meet in parking lot 1 at DP.
  - D. Go ask one of the other researchers if it's a false alarm.
  
3. Choose the items that **DO NOT** belong in the actual cleanroom (some things on this list can be stored in the gowning room but are not allowed in the cleanroom).
  - A. New chemical
  - B. Muddy Shoes
  - C. Make up
  - D. Flip-flops
  - E. Coffee
  - F. Shorts
  - G. all of above
  
4. You are working at a wet bench with Nitric Acid. You accidentally knock over the beaker pouring out about 1/8 of a gallon (about 400 mL). choose the right sequence of the following actions in the order you would take them.
  1. Check the bench and floor for contamination.
  2. Contact the cleanroom staff for supervision and cleanup.
  3. Check yourself for any chemical contamination.
  4. Label the spill and leave someone in charge of alerting others about the spill.
  - A. 1234
  - B. 3142
  - C. 4321
  - D. 1243
  
5. Safety shower are located where inside cleanroom?
  - A. In the chases of the cleanroom.
  - B. near the double door exit

- C. Next to every wet bench.
  - D. In the gowning room.
6. Choose the following cleanroom rules that are **TRUE**. (multiple choices)
- A. Smoking is allowed up to 30 minutes before you enter the cleanroom.
  - B. Only log use of equipment if something exceptional happened during your use of it.
  - C. You can use equipment without being trained on it.
  - D. You must review Material Safety Data Sheets for Chemicals before you use a chemical.
  - E. Singing and whistling are allowed in the cleanroom as long as it does not disturb other clients.
  - F. Clients should always clean up their work area before they leave.
  - G. Contacts can be dangerous to wear in the cleanroom and should be avoided.
  - H. You can move uncapped chemical bottles between benches as long as you are careful.
7. list items that you wear at all times in the cleanroom? (multiple choice)
- A. goggles
  - B. hair net/hood
  - C. coverall
  - D. booties
  - E. gloves
  - F. face shield
  - G. chemical aprons
  - H. chemical gloves
8. You are working at a bench and spill HF (Hydrofluoric Acid) on your arm. What actions should be taken?
- A. Approach the nearest emergency or eye shower and stay in shower 5 minutes.
  - B. Demand help to Call 911 but remain under shower
  - C. Removing contaminated clothing
  - D. Applying Calgonate gel while wearing clean gloves
  - E. inform cleanroom staff when possible
  - F. all of above
9. You hear the HAZMAT alarm. You don't hear or see the fire alarm activate. What do you do?
- A. Continue with your experiment until you reach a stopping point, then de-gown and meet in the lobby.
  - B. Continue with your experiment until you see something wrong. If or

- when you notice something, you'll de-gown and go to the lobby.
- C. Immediately evacuate the cleanroom via emergency exits and meet in Parking lot 1 at DP.
  - D. De-gown and exit the building, meeting in parking lot 1 at DP.
10. Choose the following statements that are **TRUE** (multiple choice)
- A. Not wearing gloves or letting your skin touch the surface of the cleanroom is OK.
  - B. Clients should always wear Personal Protective apparel when working with chemicals.
  - C. Empty chemical bottles should be placed on the floor next to the wet benches for staff to clean before disposal.
  - D. Clients should not wear personal protective equipment outside of the wet bench area.
  - E. Clients should not work with solvents at acid or base hoods.
  - F. Clients can sit in chairs while they work at wet benches.
  - G. Clients should always label any chemical mixtures they make.
  - H. When finished using your Personal Protective Equipment for the day, you should make sure it is clean and dry before returning it.
  - I. Empty chemical bottles should be placed on the bottom shelf of their respective cabinet for staff to clean before disposal.
11. You hear the HAZMAT and Fire alarms. You see flashing white and blue lights. What do you do?
- A. Continue with your experiment until you reach a stopping point, then de-gown and leave the building.
  - B. Immediately leave the cleanroom and the building through the nearest exit and meet in parking lot 1 at DP.
  - C. Immediately de-gown and meet in the hallway to find out if the alarm requires evacuation.
  - D. Call 911 to make sure the alarm is not a false alarm. If it is not, then evacuate the building.
12. If a mercury lamp explodes, what should you do?
- A. Call a staff member to let them know and then continue your work.
  - B. Call a staff member, alert others, de-gown and meet in the lobby to find out when it will be safe for you to resume work.
  - C. Push the HAZMAT alarm and evacuate the building. You won't de-gown and you'll meet in parking lot 1 at DP.
  - D. Call 911 and let them know what happened and then continue your work.
13. To use the eyewashes in the cleanroom you
- A. Pull-out the drawer.
  - B. Push down the lever.
14. If there is a major spill, what should you do?
- A. Call the cleanroom staff and ask them to come help you clean it up.

- B. Push the HAZMAT alarm, evacuate the cleanroom, do NOT de-gown, and meet in parking lot 1 at DP.
  - C. Push the HAZMAT alarm and de-gown and go to the lobby.
15. For how long do you wash a Hydrofluoric Acid (HF) spill on the skin?
- A. 15 minutes
  - B. 5 minutes, then cover entire affected area with calcium gluconate gel
  - C. Until help arrives
16. If you spill a small amount of chemical on your skin (not HF), you will ask your buddy to call for help while you do what?
- A. Push the HAZMAT alarm.
  - B. Immediately place the affected area under running water and remove all contaminated jewelry and clothing.
  - C. Get the MSDS for the chemical and wait for the ambulance.
17. You must always have a buddy when...
- A. Performing wet chemistry
  - B. Gowning
  - C. Profiling a wafer using the DEKTAK
  - D. Transporting chemicals in closed containers
18. If a wet chemical (not HF) has been spilled on a person, how long should they be under the safety shower?
- A. 5 minutes
  - B. 15 minutes or until the ambulance arrives
  - C. As long as it takes the chemical to visibly wash off.
  - D. They should not go under the safety shower at all. They should just wait for the ambulance.
19. List the location where Material Safety Data Sheets are located?
- A. E151
  - B. E152
  - C. E152A
  - D. E152B
20. The correct the gowning procedures: 1.gloves 2.hairnet/hood 3.coveral 4.booties
- A. 1234
  - B. 1432
  - C. 2341
  - D. 4231
21. During emergency, what to do to exit air shower units?
- A. follow common exit procedure, one door open at a time
  - B. push RED emergency button on the door to exit