BL-3 Guidelines Exam 2010:

Directions: Read each question carefully and circle all answers that apply or provide the information required for each question. Some questions may have only one item to be circled while others may require multiple correct answers. Please return this exam to Jen Bongorno in 1048A (You may also email it to jab101@case.edu or fax it to 216-368-2034).

The exam consists of 20 questions (4 points each for single answers and up to 7 points for multiple answers). You must score 82% or above.

Name: ____________________ Laboratory: ____________ Date: ________

1. If a user has any concerns, questions, or comments about the BL-3 or work being carried out in the facility, who is the first point of contact about this?

_________________________________________________________________

2. If the person in question #1 cannot address your concerns within a reasonable amount of time or they are beyond the scope of his/her ability to address, who should be contacted next?

_________________________________________________________________

3. What are Requirements for Users of the BL-3 Facility? Circle all that are correct:
   a. Take and pass a written examination based upon the BL-3 Guidelines
   b. Have a baseline HIV and PPD test before using the facility
   c. Be trained at the bench by their P.I. or senior lab member before working alone in the facility
   d. Have monthly HIV and PPD tests
   e. Have annual HIV and PPD tests
   f. Annual training and fit testing to be certified for a respirator.
   g. Attending special BL-3 laboratory meetings as needed

4. If a PI elects NOT to be BL-3 qualified, the PI may enter the BL-3 facility to work?
   a. True
   b. False

5. How frequently should cultures being kept in the BL-3 incubator be checked?
   a. Once a week
   b. Three times a week
   c. Daily
6. What should be done to indicate that cultures being kept in the BL-3 incubator have been checked?
   a. Nothing, the Research Assistant should know.
   b. Initial and date the log sheets that are attached to the front of the incubators that contain the cultures whenever you remember.
   c. Initial and date the log sheets that are attached to the front of the incubators that contain the cultures whenever you feel like it.
   d. Initial and date the log sheets that are attached to the front of the incubators every time you check your cultures.

7. Before entering the BL-3 proper, what is the complete procedure that should be done?
   a. Sign the logbook, flip the sign on the door, and put on complete PPE.
   b. Sign the logbook and put on complete PPE.
   c. Put on complete PPE.

8. What does a complete set of PPE consist of? Circle all that are correct.
   a. Eye protection
   b. Two pairs of shoe covers
   c. One pair of shoe covers
   d. One pair of exam gloves (under coveralls only)
   e. Two pairs of gloves (One long pair under the coveralls and one pair of regular exam gloves that can be quickly changed over the coverall cuffs)
   f. Lab coat
   g. Tyvek coveralls
   h. A surgical mask
   i. A NIOSH-approved N95 respirator specific to the individual
   j. Whatever NIOSH-approved N95 respirator is laying around in the dressing room

9. What should you do if you are working in the BL-3 and someone flips on the overhead UV lights?
   a. Keep on working but hurry up.
   b. Stop working immediately, go to the locker room and remove PPE, and exit through the door to the entryway to turn off the lights.
   c. Stop working immediately, leave on all PPE and exit through the door to the entryway to turn off the light.
   d. Call someone who has access to the facility to come open the entryway door to turn off the lights provided they will come immediately.
   e. Call someone who has access to the facility to come open the entryway door to turn off the lights provided they will come within an hour.
   f. Nothing, there is no hazard to the overhead UV lights and you can work for as long as you want.
10. What are the hazards of exposure to UV light?
   a. There are none.
   b. Absorption through the outer layers of skin and eyes may lead to superficial irritation that will usually disappear within 24 hours.
   c. Cancer.
   d. Cataracts.
   e. Temporary reddening of the eyes or conjunctivitis

11. If you think one of your cultures is contaminated, what should you do?
   a. Add more Fungizone, and hope it goes away
   b. Label it “Fungus” and leave it on the sink for the RA to discard
   c. Put it in double biohazard bags, and autoclave it immediately

12. If the overhead red negative pressurization alarm lights begin to go off while you are working in the BL-3, what is the most important thing you should do?
   a. Hurry up.
   b. Leave everything in the hood, so that no aerosols escape into the room.
   c. Exit the facility and get as far away from the BL-3 as possible.
   d. Remove all PPE and immediately exit the facility.
   e. Put away all of your samples.
   f. Call the BL-3 Research Assistant to get the alarm turned off.

13. What are the necessary steps for removing samples from the BL-3?
   a. Just wipe it with ethanol and take it to your lab.
   b. Obtain approval from the BL-3 RA or Director.
   c. The primary container will be placed in an approved secondary container.
   d. Wipe the secondary container with a fresh solution of bleach or Amphyl
   e. Spray the secondary container with 10% bleach you made last month.

14. Which of the following things are not permitted in the BL-3?
   a. Lab coats
   b. Plastic pipettes
   c. Corrugated cardboard
   d. Scissors
   e. Filter-top flasks
   f. Chewing gum

15. In the event of a spill what are the first 3 things you should do?
   a. Exit the BL-3
   b. Notify the RA
   c. Notify other workers
   d. Find the spill kit
   e. Dam off the spill with paper towels
   f. Saturate the spill with bleach and let it soak
   g. Turn on the overhead UV lights
16. If you are exposed to MTB or HIV in the BL-3 what should you do?
   a. Nothing, the immune system will kick it shortly.
   b. Don’t tell anyone, you might get in trouble.
   c. Remove contaminated gloves or garments as quickly as possible to reduce skin contamination.
   d. Wash the exposed area gently with soap and warm water.
   e. Report the incident to your supervisor and University Health Services.
   f. Go directly to University Health Services or the Emergency Room.
   g. Fill out an incident report available at University Health Service.
   h. Be sure to notify the BL-3 Research Assistant or BL-3 Director of the Incident as well so it can be addressed and procedures be revised as needed.

17. What items should be set up in the hood prior to beginning work in the BL-3?
   a. An empty bucket for all of your garbage.
   b. A small bucket lined with doubled red biohazard bags for all solid, non-sharp garbage generated in the hood.
   c. An empty bucket for all culture medium regardless of whether infectious or not.
   d. A plastic beaker that is 10% full of bleach for small amounts of culture medium, infectious or not.
   e. A pipette trough that is 1/3 full of bleach for all pipette tips, serological pipettes, cell scrapers, syringe-filter combinations, and transfer pipettes. This can be filled to the top with pipettes because they do not necessarily have to be completely submerged in bleach as long as they are close.
   f. A pipette trough that is completely full of bleach for all pipette tips, serological pipettes, cell scrapers, syringe-filter combinations, and transfer pipettes. This can be filled to the top with pipettes because they have to be completely submerged in bleach.
   g. A pipette trough that is 1/3 full of bleach for all pipette tips, serological pipettes, cell scrapers, syringe-filter combinations, and transfer pipettes. This should not be filled more than ½ full with pipettes because they must be fully submerged and can spill if they are overfull, creating a hazardous situation.
   h. A vacuum flask that is filled to the top with bleach (make sure to use a filter between the flask and the vacuum line).
   i. A vacuum flask filled to the lower mark with bleach (make sure to use a filter between the flask and the vacuum line).
   j. A vacuum flask filled to the lower mark with bleach (you don’t need a filter if you are only aspirating a little bit).
18. What should you do to clean up when you are done working?
   a. Nothing, the RA will clean everything up.
   b. Make sure everything in the trough is submerged in bleach, label it, and leave it under the UV lights in the hood for the RA to autoclave.
   c. Drain the bleach from your trough and autoclave everything immediately.
   d. Make a fresh 1:100 solution of Amphyl in the carboy with enough volume to completely submerge all of your reusable plasticware.
   e. Put all non-sharps in double red biohazard bags, and leave in the hood under UV light.
   f. Spray everything with Amphyl spray before removing it from the hood.
   g. If beakers or flasks with media have soaked in bleach for 15 minutes, pour them down the sink with copious amounts of water, rinse the beaker or flask and add it to the fresh Amphyl solution.

19. Where should the opening and closing of all primary containers of biohazardous materials occur?
   a. Wherever as long as the samples are still frozen.
   b. Only in the Biosafety Cabinet.
   c. The benchtop is fine as long as you clean up when you are done.

20. Coveralls may be worn up to 3 times unless contaminated. They should be marked with one’s name and a slash mark for every time worn.
   a. True
   b. False