Low- and Medium-Risk Sterile Compounding Quiz
(Set A)

1. The rubber stopper on a vial should be cleaned with a sterile alcohol swab
- **a.** before placing the vial into the laminar flow work bench.
- **b.** immediately upon placing the vial into the laminar flow work bench.
- **c.** immediately prior to entering the port with a sterile needle.
- **d.** before any of the sterile compounding process begins.

2. All aseptic manipulations should be done at least ___ inches from the outer edge of the laminar airflow work bench.
- **a.** two
- **b.** four
- **c.** six
- **d.** eight

3. If the laminar airflow work bench is turned off, it should be cleaned and allowed to run for at least _____ prior to use.
- **a.** fifteen minutes
- **b.** thirty minutes
- **c.** sixty minutes
- **d.** ninety minutes

4. Which of the following would be considered a multiple dose container?
- **a.** ampule
- **b.** syringe
- **c.** 50 ml preservative free vial
- **d.** 20 ml vial containing benzyl alcohol

5. Proper hand washing should start
- **a.** at the fingertips and gradually scrub up to the elbows.
- **b.** at the fingertips and gradually scrub up to the wrists.
- **c.** at the elbows and gradually scrub down to the fingertips
- **d.** at the wrists and scrub down to the fingertips.

6. A sterile needle
- **a.** should be wiped with an alcohol swab prior to use.
- **b.** may be touched by sterile gloves
- **c.** may be used an unlimited number of times if kept in a sterile environment.
- **d.** should remain in its sterile overwrap until it is needed.

7. When opening an ampule,
- **a.** it should be opened toward the HEPA filter to catch any loose glass shards
- **b.** its neck should be cleansed with an alcohol swab and the swab left in place to prevent accidental cuts to the fingers
- **c.** it should be opened using extreme pressure to ensure a clean break
- **d.** it should be opened slowly to prevent excessive glass shards

8. A filter needle removes
- **a.** pyrogens
- **b.** bacteria
- **c.** particles
- **d.** fungus

9. When cleaning the laminar airflow workbench, the compounder should begin at
- **a.** the innermost surface and and wipe toward the opening of the LAFW in a uniform line of movement.
- **b.** the opening of the LAFW and wipe toward the innermost surface in a uniform line of movement.
- **c.** the innermost surface and wipe toward the opening of the LAFW in a sweeping side-to-side motion.
- **d.** the opening of the LAFW and wipe toward the innermost surface in a sweeping side-to-side motion.

10. When reconstituting a drug, inject the diluent
- **a.** rapidly into the vial and vigorously shake to dissolve the powder.
- **b.** rapidly into the vial and allow it to set in the hood until the powder is dissolved
- **c.** slowly into the vial and rotate or rock the vial to dissolve the powder.
- **d.** slowly into the vial and allow it to set in the hood until the powder is dissolved.

11. All aseptic manipulations should be carried out in an ____ laminar airflow workbench.
- **a.** ISO Class 8
- **b.** ISO Class 7
- **c.** ISO Class 6
- **d.** ISO Class 5

12. A _____ may be re-used during if carefully removed at the entrance of the clean room, but only during the same shift.
- **a.** hair cover
- **b.** face mask
- **c.** shoe cover
- **d.** gown

13. Each laminar airflow workbench or barrier isolator must be certified for air quality and performance at least
- **a.** monthly
- **b.** weekly
- **c.** semi-annually
- **d.** annually

14. Compounded sterile products that lack justification from either appropriate literature sources or by direct testing evidence for beyond-use date,
- **a.** cannot be used.
- **b.** must be assigned a beyond-use date in accordance with the section *Stability Criteria and Beyond-use Dating* in the USP <795> chapter
- **c.** must be tested for stability by a certified laboratory before use.
- **d.** must be given a 24-hour beyond-use date.

15. Compounding of parenteral nutrition (PN) fluids is an example of
- **a.** low-risk sterile compounding
- **b.** medium-risk sterile compounding
- **c.** high-risk sterile compounding
- **d.** ultimate-risk sterile compounding

16. In the anteroom, storage shelving is emptied of all supplies, cleaned, and sanitized at planned intervals, preferably
- **a.** daily
- **b.** weekly
- **c.** monthly
- **d.** semi-annually

17. Simple aseptic measuring and transferring of not more than three packages of commercial sterile products is an example of
- **a.** low-risk level CSPs with 12-hour or less BUD.
- **b.** low-risk level CSPs.
- **c.** medium-risk level CSPs.
- **d.** immediate-use CSPs.

18. For a medium-risk preparation, in the absence of passing a sterility test, the storage period cannot exceed the following time period before administration:
- **a.** 24 hours at room temperature
- **b.** 9 days refrigerated
- **c.** 14 days refrigerated
- **d.** 30 days refrigerated

19. An immediate-use CSP is an example of a

- **a.** low-risk level CSP
- **b.** medium-risk level CSP
- **c.** high-risk level CSP
- **d.** none of the above

20. A single-dose vial exposed to ISO Class 5 air may be used up to ____ hour(s) after the initial needle puncture.

- **a.** 1
- **b.** 6
- **c.** 8
- **d.** 24

21. In operations that prepare large volumes of hazardous drugs, environmental sampling to detect uncontained hazardous drugs should be performed

- **a.** at least every 6 months
- **b.** at least monthly
- **c.** at least weekly
- **d.** at least daily

22. The pressure differential between the buffer area and ante-area and between the ante-area and the general environment shall be reviewed and documented on a log sheet at least

- **a.** monthly
- **b.** daily
- **c.** weekly
- **d.** every work shift

23. _____ shall be the preferred method of volumetric air sampling.

- **a.** Settling plates
- **b.** Swabbing
- **c.** Impaction
- **d.** Electronic collection

24. Wiping with_____ is preferred for disinfecting entry points on bags and vials.

- **a.** small sterile 70% IPA swabs that are commercially available in individual foil-sealed packages
- **b**. small 70% IPA swabs that are commercially available in individual foil-sealed packages
- **c.** lint-free pads soaked in Dakin's solution
- **d.** sterile 70% IPA wetted gauze pads

25. The beyond-use date after initially entering or opening a multi-dose vial container is

a. 7 days
b. 24 hours
c. 28 days
d. 96 hours