**ASEPTIC TECHNIQUE**

7. What is aseptic technique and why is it important?

**Techniques that prevent contamination of work area, specimen, yourself of others. Important for preventing errors in experiment caused by contamination and preventing infection.**

8. What part of the loop shall be sterilized using the Bunsen burner flame?

|  |  |
| --- | --- |
| A. | Only the loop end |
| **B.** | **From the loop end to the handle base** |
| C. | The portion closest to the hand that would cause contamination |
| D. | One inch or approximately 4 cm above the loop |

9. Explain the difference between the technique with flaming loops and flaming test tubes during an aseptic transfer.

**Loops held in flame until metal turns red hot/test tubes are only passed through the flame three times**

10. Describe the area of a Bunsen burner flame which you sterilize loops, needles, and test tube openings.

**The inner blue cone of the flame**

11. Which of the following lists the correct aseptic steps in a transfer technique?

|  |  |
| --- | --- |
| A. | Flame loop, flame tube, transfer bacteria to tube, flame loop |
| B. | Flame loop, transfer bacteria to tube, flame tube, flame loop |
| C. | Flame loop, transfer bacteria to tube, flame loop |
| **D,** | **Flame loop, flame tube, transfer bacteria to tube, flame tube, flame loop** |

18. After performing a quadrant streak of a *Bacillus subtilis* culture, you observe a lawn of bacterial growth over all four quadrants.  What are some mistakes that may have been made in the quadrant streak procedure to obtain this result?

**Did not sterilize loop between quadrants, plate had excess condensation, sloppy transfer from broth to plate.**

19. What is the correct procedure for cleaning up a spilled bacterial culture?  What is the purpose of this practice?

**Cover spill with paper towel and soak with bleach or 70% ethanol. Let soak for a minute. Wipe up spill and clean again with bleach or 70% ethanol. The purpose is to keep the bacteria from contaminating additional work area or materials or self.**

20. Briefly describe how the aseptic technique is applied while performing a serial dilution.

**Work under a flame, quickly open and close tip boxes, change tips between each dilution and each plating, ethanol and flame spreaders between each use**.

21. During aseptic transfers, it’s advisable to do the following except;

a)    Flame tube’s openings before and after performing transfers

b)    Hold the inoculating loop like a pencil with your dominant hand

**c)     Hold tubes containing culture and inoculation media by their caps**

d)    Flame loop from base to tip until red hot, wait for it to cool, before performing a transfer

22. Match the following growth media with the appropriate inoculating method. Either A. inoculating loop or B. inoculating needle) (2 points)

|  |  |
| --- | --- |
| SIM medium | **B** |
| Tryptic Soy Broth | **A** |
| Phenylethyl Alcohol (PEA) | **A** |
| Simmon’s Citrate medium | **B** |