Microbiology Learning Objectives C7
The Control of Microbial Growth

1. Terminology: sepsis, asepsis, antisepsis, sterilization, sanitization, degerming, biocide, germicide, bacteriostasis, disinfection

2. What is a nosocomial infection?

3. What is the difference between a vegetative bacteria and an endospore?

4. Which method(s) of control will kill an endospore?

5. What are the three types of actions that can kill or inhibit microbes?

6. What is an autoclave? How do they work? What type of microbial control occurs with an autoclave?

7. What is pasteurization? When milk is pasteurized are all organisms killed?

8. Is desiccation a good way to kill microbes? Explain.

9. Explain why osmotic pressure may be used as a method to preserve food?

10. Different forms of radiation can be used to control microbial growth. How does UV light inhibit bacterial growth? Explain.

11. Lister was the first to use phenol to control surgical infections in the late 1800. Why do phenols inhibit bacterial growth? Are phenols still used today?

12. What is disinfection? What variables determine the effectiveness of any disinfection?

13. What is hexachlorophene? How and where is it used? What types of organisms are controlled by hexachlorophene?

14. What are two halogens used as a disinfectant?

15. When using alcohol as a disinfectant, what are two concerns? Explain

16. When was silver first used to control bacterial growth? How is silver used today in medicine to control bacterial growth?

17. If you wanted to disinfect a surface contaminated by vomit and another surface contaminated by a sneeze, how would you select the proper disinfectant?

18. Why is alcohol effective against some viruses and not others?

19. What are the characteristics of a surface-active agent?

20. Why are aldehydes used to control microbial growth?

21. What chemical disinfectants can be considered sporicides?

22. What chemicals are used to sterilize?

23. Why are gram-negative bacteria more resistant to chemical biocides than gram-positive bacteria?

24. What is the order of resistance of microorganisms to chemical biocides?

25. What chemical is used as a surgical hand wash?

26. What is a limitation of the autoclave?

27. How is ethylene oxide used?

28. How can you destroy prions?

29. What can you use to decontaminate bone and tendons?