1. The process of destroying all living organisms and viruses is called _____.

1. disinfection
2. decontamination
3. sterilization

2. An agent that is will inhibit the growth of microorganisms but not kill them is said to be:

1. static in action.
2. cidal in action.
3. a sterilizing agent.

3. Temperatures below the minimum usually have a _____ action on microorganisms.

1. cidal
2. static
3. killing

4. Moist heat normally kills microorganisms by:

1. denaturing their proteins and melting lipids in their cytoplasmic membranes.
2. causing protein oxidation.

5. Low temperature inhibits microbial growth by:

1. damaging microbial cytoplasmic membranes.
2. denaturing microbial enzymes.
3. slowing down microbial metabolism.

6. When we add salt or sugar to a bacterial environment, it inhibits bacterial growth by:

1. causing osmotic lysis.
2. denaturing bacterial enzymes.
3. causing dehydration.

7. In a hypertonic environment , the net flow of free water is:

1. into the cell.
2. out of the cell.
3. in and out of the cell at an equal rate.

8. Ultraviolet radiation kills bacteria by:

1. causing mutation.
2. denaturing proteins and enzymes.
3. causing osmotic lysis.
4. causing dehydration.

9. An advantage of filtration over autoclaving for sterilizing vaccines, antibiotic solutions, and vitamin solutions is that it:

1. doesn’t kill the bacteria.
2. is cidal in action.
3. is static in action.
4. doesn’t denature chemicals in the solution.

10. This is TSA agar with 15% NaCl inoculated with *E. coli*. Could there still be living bacteria on this plate?

1. No. Hypotonicity is cidal.
2. Yes. Hypertonicity is static.
3. No. Hypertonicity is cidal.

11. This plate TSA inoculated with *Serratia marcescens* was exposed to UV radiation for 1 minute with the lid on. What best explains these results?

1. *Serratia marcescens* is resistant to UV radiation.
2. The UV radiation killed the bacteria by causing mutation.
3. The UV radiation did not penetrate the plastic lid.