

Outside assignment 1: The control of Microbial Growth, from Chapter 11

**Answer on a separate sheet of paper. You may email me your assignment

Be specific and detailed for a complete grade. *The assignment must be turned in on time or a significant reduction of points will be assessed.*****

1. Define the following terms (5 points)
 - a. Sterilization
 - b. Disinfect ion
 - c. Degerming
 - d. Antisepsis
 - e. Sanitization
 - f. Commercial sterilization
 - g. Decimal reduction time (D-value)
 - h. Thermal death time and thermal death point
 - i. Micro biocide
 - j. Micro biostatic

2. Each of the following means of physical control, describe the **action** on the cell, its **effect** on the cell, and an **example** of its use. (5 points)
 - a. Autoclave
 - b. Boiling
 - c. Pasteurization
 - d. Radiation: both UV light and ionizing radiation
 - e. Cold

3. For each of the following chemicals, **describe the mode of action and give an example of its use. (5 points)**
 - a. Halogens: both chlorine and iodophores
 - b. Phenol
 - c. Hydrogen peroxide
 - d. Alcohols
 - e. Surfactants
 - f. Alkylating agents

4. For each of the following examples, choose the best method of microbial control (5 points)
 - a. Disinfecting contaminated laboratory waste
 - b. Preparing a patient for abdominal surgery
 - c. Purifying a city's drinking water
 - d. Eliminating risk of drinking raw milk
 - e. Sterilizing plastic catheters

5. You are a member of a committee in charge of maintaining the best possible control of microorganisms for one of the following: (a) a hospital (b) a restaurant (c) a home environment. **Choose one** of these situations and show what kind of problems of controlling microorganisms might exist and how you would solve the problems. **Be specific and detailed.** (5 points)