**Week 10 Review Sheet I**

**Exercise 1 - Disinfectants**

1. What does bactericidal mean? Bacteriostatic? Virucidal? Fungistatic?

2. Why are control cultures necessary in evaluating disinfectants?

3. What factors can influence the activity of a disinfectant?

4. Why do microorganisms differ in their response to disinfectants?

5. What microorganisms are most susceptible to disinfectants?

**EXERCISE 2 - Antimicrobial Agent Susceptibility Testing and Resistance**

1. What is meant by antimicrobial resistance? Susceptibility?

2. Why are pure cultures used for antimicrobial susceptibility testing?

3. Would it be acceptable to use a mixed culture for this test? Why?

4. List three factors that can influence the accuracy of the test.

5. When performing a broth dilution test, why is it necessary to include a growth control tube?

A sterility control tube?

**EXERCISE 3 - The *Enterobacteriaceae* (Enteric Bacilli)**

1. What does the term IMViC mean?

2. Why is the IMViC useful in identifying Enterobacteriaceae? Are further biochemical tests necessary for complete identification?

3. What diagnostic test differentiates Proteus and Providencia species from other

Enterobacteriaceae?

4. How is E. coli distinguished from P. vulgaris on MacConkey agar? On a TSI slant?

5. Why is it important to differentiate glucose nonfermenters from Enterobacteriaceae?

**EXERCISE 4 – Streptococci, Pneumococci, and Enterococci**

1. Differentiate the microscopic morphology of streptococci and pneumococci as seen by

Gram stain.

2. What type of hemolysis is produced by S. pneumoniae?

3. How is S. pneumoniae distinguished from other streptococci with the same hemolytic properties?

4. Describe the hemolysis produced by alpha-hemolytic, beta-hemolytic, and nonhemolytic streptococci.

5. What type of hemolysis is displayed by the groupable streptococci that are most pathogenic for human beings?

**EXERCISE 5 - Urine Culture Techniques**

1. What is bacteriuria? When is it significant?

2. How do microorganisms enter the urinary tract?

3. Why is aseptic urine collection important when cultures are ordered?

4. List five bacteria that can cause urinary tract infection.

5. If you counted 20 colonies from a 0.01-ml inoculum of a 1:10 dilution of urine, how many organisms per milliliter of specimen would you report? Is this number significant?