

UNIVERSITY OF JAFFNA, SRILANKA
BACHELOR OF PHARMACY
SECOND YEAR FIRST SEMESTER EXAMINATION – OCTOBER 2019
PHAMB 2163 PHARMACEUTICAL MICROBIOLOGY
DATE: 11.11.2019 **TIME: 2 Hours.**

Answer All Six Questions.

1.
 - 1.1. Define the terms
 - 1.1.1. Disinfection (10 Marks)
 - 1.1.2. Sterilization (10 Marks)
 - 1.2. Describe the following sterilization methods.
 - 1.2.1. Autoclaving (50 Marks)
 - 1.2.2. Membrane filtration (30 Marks)

2.
 - 2.1. List ten(10) properties of ideal disinfectant. (30 Marks)
 - 2.2. List and explain the different factors that affect the antimicrobial activity of disinfectants. (50 Marks)
 - 2.3. List four (04) tests that can be used to evaluate the antimicrobial activity of disinfectants. (20 Marks)

3.
 - 3.1. Define the following terms related to microorganisms
 - 3.1.1. Tolerance (10 Marks)
 - 3.1.2. Resistance (10 Marks)
 - 3.2. How different pharmaceutical ingredients are subjected to microbial attack. Explain with examples. (50 Marks)
 - 3.3. Write short note on sutures and ligatures. (30 Marks)

4.
 - 4.1. What is Antimicrobial Susceptibility Test? (AST)? (10 Marks)
 - 4.2. Describe the following types of ASTs.
 - 4.2.1. Disc diffusion test (45 Marks)
 - 4.2.2. Broth and agar dilution test (45 Marks)

5.
 - 5.1. List the ideal properties of preservatives used in pharmaceuticals. (25 Marks)
 - 5.2. Describe the factors that should be considered during the selection of preservatives for pharmaceuticals. (75 Marks)

6.

- 6.1. Briefly explain the observable effects of microbial attack on pharmaceutical products. (35 Marks)
- 6.2. List and describe the different factors that affect the microbial spoilage of pharmaceuticals. (65 Marks)