

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**BACHELOR OF PHARMACY**  
**SECOND YEAR FIRST SEMESTER EXAMINATION – JANUARY 2016**  
**PHAMB 2163 PHARMACEUTICAL MICROBIOLOGY**



**Date: 12.02.2016**

**Time: 02 Hours**

**Answer all questions.**

1.
  - 1.1 Define phenol coefficient. (10 Marks)
  - 1.2 List the merit and demerit of phenol coefficient test (40 Marks)
  - 1.3 One drop (0.05 mL) of the solution from a test tube containing 2.5 mL of 5% phenol is transferred to a 10 mL broth solution. Calculate the extent of inactivation of germicidal activity of phenol? (20 Marks)
  - 1.4 Enumerate sterilization of pharmaceutical device by autoclaving. (30 Marks)
  
2.
  - 2.1 Write an account on pyrogen? (30 Marks)
  - 2.2 Describe the preparation of pyrogen free water for injection. (30 Marks)
  - 2.3 Briefly explain the observable microbial spoilage of pharmaceutical products. (40 Marks)
  
3.
  - 3.1 Define "ophthalmic preparation" (20 Marks)
  - 3.2 Write explanatory notes for the following ophthalmic preparations.
    - 3.2.1 Eye drops (40 Marks)
    - 3.2.2 Eye lotions (20 Marks)
    - 3.2.3 Eye ointments (20 Marks)
  
4. Explain the procedures of aseptic processing of the followings:
  - 4.1 Monitoring of manufacturing environment. (50 Marks)
  - 4.2 Preparation and filtration of solution. (25 Marks)
  - 4.3 Process validation. (25 Marks)
  
5. Describe laboratory tests to determine
  - 5.1 bacteriostatic activity (60 Marks)
  - 5.2 bactericidal activity (20 Marks)
  - 5.3 antiviral activity (20 Marks)

6. 6.1 List the factors that affect the choice of antimicrobial agents. (20 Marks)  
6.2 Name groups of compounds that can be used as disinfectants. (20 Marks)  
6.3 Briefly explain the disinfectant activity of one compound from each group mentioned in question 6.2. (60 Marks)
7. 7.1 Explain the essential characteristics of suture materials. (50 Marks)  
7.2 Write an explanatory notes on “sterilized surgical catgut”. (50 Marks)
8. 8.1 Explain the term “sterility testing”. (20 Marks)  
8.2 Describe the most appropriate sterility testing method for the followings:  
8.2.1 Soluble powder of antibiotic of 5 g vial. (30 Marks)  
8.2.2 Cotton B.P 100 g sterile pack. (20 Marks)  
8.3 List the advantages and disadvantages of one of the sterility test method mentioned above. (30 Marks)

XXXXXXXXXXXXXXXXXX