

UNIVERSITY OF JAFFNA, SRI LANKA
BACHELOR OF PHARMACY
SECOND YEAR FIRST SEMESTER EXAMINATION – FEBRUARY 2017
PHAMB 2163 PHARMACEUTICAL MICROBIOLOGY

Date: 01.04.2017

Time: Two Hours

Answer all six questions.

1. 1.1 Define the term “Disinfection”. (20 Marks)
1.2 List the factors that affect the function of disinfectants. (30 Marks)
1.3 Describe the properties of acids and aldehydes, as disinfectants with examples. (50 Marks)

2. 2.1 List five sterile pharmaceutical products. (20 Marks)
2.2 List the essential characteristics of suture materials. (30 Marks)
2.3 Describe the different methods used to sterilize suture materials. (50 Marks)

3. 3.1 Define the term “Recombinant gene”. (20 Marks)
3.2 Describe the key observable features in pBR322 plasmid. (40 Marks)
3.3 Explain the steps involved in the production of recombinant human insulin. (40 Marks)

4. 4.1 Define the terms “bacteriostatic” and “fungicidal”. (20 Marks)
4.2 Describe the different laboratory methods which are used to determine the bacteriostatic and antifungal activities. (50 Marks)
4.3 Give three examples for each of bacteriostatic and fungicidal agents. (30 Marks)

5. 5.1 Define the term Sterility Assurance Limit (SAL). (10 Marks)
5.2 Briefly describe the terminal sterilization method that is used to produce pharmaceutical products. (20 Marks)
5.3 Describe the autoclave and dry heat sterilization methods. (70 Marks)

6. 6.1 List five observable effects of microbial contamination on pharmaceutical products. (20 Marks)
6.2 Describe the susceptibility of pharmaceutical ingredients to microbial attack. (80 Marks)