

UNIVERSITY OF JAFFNA, SRI LANKA
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES
SECOND YEAR FIRST SEMESTER EXAMINATION- FEBRUARY 2017

MLSMM 2136 MEDICAL MICROBIOLOGY

PAPER II

Date:09.02.2017

Time: 2 Hours

ANSWER ALL EIGHT QUESTIONS.

1.
 - 1.1 Name five anaerobic bacteria (15 Marks)
 - 1.2 List the infections caused by each of the bacterium mentioned in 1.1 (20 Marks)
 - 1.3 Briefly describe the mode of transmission of each of the bacteria mentioned in 1.1 (25 Marks)
 - 1.4 Name the specimens which could be collected for microbial diagnosis in each infection mentioned in 1.2 (20 Marks)
 - 1.5 List four culture media used for culturing of anaerobic bacteria in the laboratory (20 Marks)

2.
 - 2.1 Briefly explain the possible reactions you would observe when the following organisms are cultured on TSI agar medium
 - 2.1.1 *Salmonella typhi* (30 Marks)
 - 2.1.2 *Klebsiella pneumoniae* (30 Marks)
 - 2.2. Name five culture media used for aerobic bacterial culture and describe their uses (40 Marks)

3. Write the principle and procedures of the following tests
 - 3.1 Indole test (50 Marks)
 - 3.2 Catalase test (50 Marks)

- 4.
- 4.1 Describe five virulent factors of bacteria which facilitate the pathogenesis (50 Marks)
- 4.2 List the differences between the cell wall of Gram positive and Gram negative bacteria (50 Marks)
- 5.
- 5.1 Name five Gram negative bacteria which cause human infections. (20 Marks)
- 5.2 List the infections caused by each of bacterium you mentioned in 5.1. (40 Marks)
- 5.3 Write briefly how would you collect and transport the stool samples for microbial diagnosis (40 Marks)
6. Write short notes on
- 6.1 *Shigella spp.* (50 Marks)
- 6.2 *Mycobacterium tuberculosis* (50 Marks)
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- 7.
- 7.1 List the infections caused by *Staphylococcus aureus* (10 Marks)
- 7.2 Describe the test used to identify *Staphylococcus aureus* from other *Staphylococcus spp.* in a laboratory (50 Marks)
- 7.3 Explain the pathogenesis of rheumatic fever (40 Marks)
- 8.
- 8.1 Define the term sterilization (10 Marks)
- 8.2 List the types of sterilization methods and describe each of the method With examples (90 Marks)