

UNIVERSITY OF JAFFNA, SRI LANKA
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES
SECOND YEAR FIRST SEMESTER EXAMINATION- OCTOBER 2019

MLSMM 2136 MEDICAL MICROBIOLOGY

PAPER II

Date: 30.10.2019

Time: 2 Hours

ANSWER ALL EIGHT QUESTIONS.

1.
 - 1.1 Name three serological groups of Streptococci and mention the infections caused by each. (30 Marks)
 - 1.2 Briefly describe the test used to differentiate Staphylococci from Streptococci. (30 Marks)
 - 1.3 Briefly write on post streptococcal sequelae. (40 Marks)

2.
 - 2.1 Briefly explain the possible reactions you would observe when the following bacteria are cultured on TSI agar medium
 - 2.1.1 *E.coli* (30 Marks)
 - 2.1.2 *Shigella boydi* (30 Marks)
 - 2.2 List five culture media used in a routine microbiology laboratory and mention the use of each media. (40 Marks)

3.
 - 3.1 Name five virulent factors present in a bacteria and explain how each factor facilitates the pathogenicity of bacteria. (50 Marks)
 - 3.2 Discuss the differences between gram positive and gram negative cell wall of bacteria. (50 Marks)

- 4.
- 4.1 Define the following terms
- 4.1.1 Sterilization (05 Marks)
- 4.1.2 Disinfection (05 Marks)
- 4.2 Explain the principle used in moist heat sterilization method. (30 Marks)
- 4.3 Discuss how you would use an autoclave to sterilize culture media. (30 Marks)
- 4.4 Briefly write on chemical disinfectants. (30 Marks)
- 5.
- 5.1 Name two bacteria which cause enteric fever. (10 Marks)
- 5.2 List the samples you would receive to identify the bacteria mentioned in 5.1. (10 Marks)
- 5.3 Briefly describe the tests you would carryout in a microbiology laboratory to identify the pathogens mentioned in 5.1. (40 Marks)
- 5.4 Discuss on prevention and control of enteric fever. (40 Marks)
6. Write short notes on
- 6.1 *Heamophilus influenzae* (50 Marks)
- 6.2 *Mycobacterium tuberculosis* (50 Marks)
- 7.
- 7.1 Name four anaerobic bacteria which cause infections in human. (10 Marks)
- 7.2 Briefly describe the infections caused by each bacteria mentioned in 7.1. (60 Marks)
- 7.3 List the tests you would carryout to identify the bacteria mentioned in 7.1. (30 Marks)
8. Write the principle of the following tests and mention one bacteria which give positive result for each test
- 8.1 Urease test (25 Marks)
- 8.2 Indole test (25 Marks)
- 8.3 Oxidase test (25 Marks)
- 8.4 Tube coagulase test (25 Marks)