



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

MLSMM 2136 MEDICAL MICROBIOLOGY
PAPER II

Date: 26. 08.2017

Time: 2 Hours

ANSWER ALL EIGHT QUESTIONS.

1.
 - 1.1 Describe the structure of a bacterial cell. (40 Marks)
 - 1.2 Briefly describe how the structure of bacterial cell wall influence on Gram staining property of a bacteria. (30 Marks)
 - 1.3 Compare and contrast bacterial “endotoxins and exotoxins”. (30 Marks)

2.
 - 2.1 Name three mechanisms in which genetic materials are transferred between two bacterial cells (15 marks)
 - 2.2 Briefly describe the mechanisms you mentioned in 2.1. (60 marks)
 - 2.2 List the factors influence on antibiotic resistance in bacteria. (25 marks)

3. Write the principle and procedures of the followings
 - 3.1 Urease test (30 Marks)
 - 3.2 Methyl Red test (40 Marks)
 - 3.3 Indole test (30 Marks)

4.
 - 4.1 Name four bacteria which cause diarrhoea. (20 Marks)
 - 4.2 How would you collect and transport sample from a patient with diarrhoea to the laboratory. (40 Marks)

- 4.3 Name four culture media which are used to identify faecal pathogens and mention their uses. (40 Marks)
- 5.
- 5.1. List the infections caused by *Haemophilus influenzae* (30 Marks)
- 5.2 Name two tests that are used to identify *Haemophilus influenzae* in a laboratory. (10 Marks)
- 5.3 List the infections caused by *Salmonella spp.* (20 Marks)
- 5.4 Briefly describe the tests you would carry out to identify *Salmonella typhi*. (40 Marks)
6. Write short notes on
- 6.1 *Helicobacter pylori* (30 Marks)
- 6.2 *Burkholderia pseudomallei* (40 Marks)
- 6.3 *Corynebacterium diphtheriae* (30 Marks)
- 7.
- 7.1 List the infections caused by *Streptococcus pyogenes*.. (30 Marks)
- 7.2 Briefly describe two complications of post *Streptococcus pyogenes* infection. (40 Marks)
- 7.3 Write on tube coagulase test. (30 Marks)
- 8.
- 8.1 Name two Gram negative cocci and list the infections caused by each bacteria. (30 Marks)
- 8.2 Name five Gram positive anaerobic bacilli and list the infections caused by each. (40 Marks)
- 8.3 How would you collect sputum sample from a patient with tuberculosis for the microbiological diagnosis. (30 Marks)