



UNIVERSITY OF JAFFNA, SRI LANKA
FACULTY OF ALLIED HEALTH SCIENCES
FOURTH YEAR FIRST SEMESTER EXAMINATION IN
B.Sc. (HONS) IN MEDICAL LABORATORY SCIENCES- 2019
MLSCM 4125 CLINICAL MICROBIOLOGY

Date: 08.03.2021

Time: 3 hours

ANSWER ALL SIX QUESTIONS.

1. A blood sample of a 50 year old male suspected to have typhoid fever was inoculated into a blood culture bottle and was received for microbiological diagnosis.
 - 1.1 Briefly describe how you would inspect the blood culture bottle on receipt.(10 marks)
 - 1.2 Briefly describe how to process the blood specimen for culture in a clinical microbiology laboratory. (55 marks)
 - 1.3 Name the bacteria which causes typhoid fever. (05 marks)
 - 1.4 Describe how you would identify the bacteria you mentioned in 1.3 in a clinical microbiology laboratory. (30 marks)

2. Describe how to perform and interpret the results of the following tests.
 - 2.1 Kirby-Bauer disk diffusion test (60 marks)
 - 2.2. X and V factor test (40 marks)

3. A urine sample of a 45-year-old woman with acute lower urinary tract infection is received for microbiology diagnosis.
 - 3.1 Name three pathogenic bacteria commonly isolated from urine specimen. (15 marks)
 - 3.2 Describe how you would process this urine sample in a clinical microbiology laboratory. (30 marks)
 - 3.3 Describe how to identify the pathogens mentioned in 3.1. (55 marks)

4. Write notes on

- 4.1 Culture media used in Sri Lanka for routine stool culture (40 marks)
- 4.2 Ziehl- Neelsen staining (30 marks)
- 4.3 Indole test (30 marks)

5. A cerebrospinal fluid (CSF) sample from a 05-year-old child is received for microbiological investigation.

- 5.1 Name three bacterial pathogens which can be isolated from this specimen. (15 marks)
- 5.2 Describe how you would process this sample in a clinical microbiology laboratory. (35 marks)
- 5.3 Describe how to identify the pathogens you mentioned in 5.1. (50 marks)

6. A pus swab from a wound is received for microbiological investigation.

- 6.1 Name two common bacterial pathogens isolated from this sample. (10 marks)
- 6.2 Describe how to process the above sample. (30 marks)
- 6.3 Describe how to identify the pathogens you mentioned in 6.1 in a clinical microbiology laboratory. (40 marks)
- 6.4 Briefly describe the reporting procedure for the given sample. (20 marks)