

Library copy



**UNIVERSITY OF JAFFNA, SRI LANKA**  
**BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES**  
**FOURTH YEAR FIRST SEMESTER EXAMINATION – FEBRUARY 2017**  
**MLSCM 4102 CLINICAL MICROBIOLOGY**

**Date: 22.02.2017**

**Time: 3 hours**

**ANSWER ALL SIX QUESTIONS.**

1.
  - 1.1 Name two species of bacteria which cause tuberculosis in human. (10 marks)
  - 1.2 Describe briefly the routine staining method used to observe the bacteria you mentioned in 1.1. (30 marks)
  - 1.3 Name two culture media available to isolate the bacteria mentioned in 1.1. (10 marks)
  - 1.4 Describe briefly how to process and culture a sputum specimen from a suspected tuberculosis patient. (35 marks)
  - 1.5 Describe briefly the colony appearance of common causative bacteria for tuberculosis. (15 marks)
  
2.
  - 2.1 Describe the two disc diffusion methods used in antibiotic susceptibility tests. (60 marks)
  - 2.2 Describe briefly two methods used to determine the Minimum Inhibitory concentration (MIC). (40 marks)
  
3. Write notes on
  - 3.1 ELISA technique. (40 marks)
  - 3.2 Tube coagulase test. (30 marks)
  - 3.3 Enriched media. (30 marks)

4. A pus swab is received for bacterial identification in a routine microbiology.
- 4.1 Name two bacteria which can be isolated from the above specimen. (10 marks)
  - 4.2 Describe how to process the above specimen. (25 marks)
  - 4.3 Describe how to identify the bacterial pathogens you have mentioned in 4.1. (35 marks)
  - 4.4 Describe the reporting procedure for pus swabs. (30 marks)

5. A cerebrospinal fluid sample from a five year old patient is received for microbiological investigations

- 5.1 Name three bacteria which can be isolated from this specimen. (15 marks)
- 5.2 Describe how you would process this sample. (25 marks)
- 5.3 Describe how to identify the pathogen mentioned in 5.1. (60 marks)

6. A stool sample of a five year old child with diarrhea is received for Microbiological diagnosis.

- 6.1 Name three bacteria identified on stool bench routinely in Sri Lanka. (10 marks)
- 6.2 Name the culture media and the biochemical tests used routinely to identify the bacteria in stool samples. (30 marks)
- 6.3 Describe how you would identify each bacteria you mentioned in 6.1 in a microbiology laboratory. (60 marks)

XXXXXXXXXXXXXXXXXXXX