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UNIVERSITY OF JAFFNA, SRI LANKA
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES
FOURTH YEAR FIRST SEMESTER EXAMINATION- JANUARY 2016

MLSCM 4102 CLINICAL MICROBIOLOGY

Date: 18.01.2016

Time: 3 Hours

ANSWER ALL SIX QUESTIONS.

1.

- 1.1 Describe two different disk diffusion methods used to carry out antibiotic susceptibility tests in Sri Lanka. (60 Marks)
- 1.2 Enumerate the advantages and disadvantages of each method you mentioned in 1.1. (20 Marks)
- 1.3 Write notes on Minimum Inhibitory Concentration (MIC). (20 Marks)

2. An aspirated pus sample is received for anaerobic bacterial identification.

- 2.1 Name five anaerobic bacteria which can be isolated from the above specimen. (20 Marks)
- 2.2 Outline the specimen transport and processing of the above mentioned sample for identification of anaerobic bacteria. (60 Marks)
- 2.3 Describe briefly how to culture anaerobic bacteria in anaerobic jar. (20 Marks)

3. A sputum sample is received for Acid Fast Bacilli staining

- 3.1 Write the procedure of Acid Fast Bacilli staining method. (40 Marks)
- 3.2 Name two media which can be used to culture *Mycobacterium tuberculosis*. (10 Marks)
- 3.3 Describe briefly the cultural characteristics of *Mycobacterium tuberculosis*. (25 Marks)
- 3.4 Describe the precautions to be taken while handling the sputum sample. (25 Marks)

4. Write notes on
- 4.1 Coagulase test **(40 Marks)**
 - 4.2 CAMP test **(30 Marks)**
 - 4.3 VDRL test **(30 Marks)**
5. A CSF sample from a 3 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 to process this sample and identify each bacteria mentioned in 5.1. **(85 Marks)**
6. A blood culture specimen from a 65 year old male patient suspected to have pneumonia is received in the Microbiology laboratory.
- 6.1 Describe how to process the above sample by manual method. **(50 Marks)**
 - 6.2 Name two gram positive bacteria which could be isolated from this specimen. **(10 Marks)**
 - 6.3 Describe how to identify the bacteria you mentioned in 6.2. **(40 Marks)**