



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
Third Examination for Medical Degrees Part I – July 2018
MICROBIOLOGY - Paper II

Tuesday 10th July 2018

10.30 a.m. to 12.30 p.m.

Answer ALL FOUR questions.

(2 hours)

Answer each question in a separate answer book.

1. A 35 year-old female presented to a medical ward complaining of fever, malaise and dyspnoea on exertion for 3 days. She had undergone a dental extraction one month ago. She gives a past history of rheumatic fever. On examination, there was a cardiac murmur.
 - 1.1 What is the most likely diagnosis? (10 marks)
 - 1.2 Name three (3) likely causative pathogens. (15 marks)
 - 1.3 List the microbiological investigations that would help in confirming the clinical diagnosis and briefly describe the collection and transport of the relevant specimens. (30 marks)
 - 1.4 What is the recommended empirical antimicrobial therapy for this patient? (15 marks)
 - 1.5 List three (3) major complications that could occur if left untreated? (15 marks)
 - 1.6 What advice will you give this patient on discharge? (15 marks)

2. Briefly describe the steps in the management that should be adopted in the following situations.
 - 2.1 A neonate delivered by a hepatitis B positive mother six hours ago. (35 marks)
 - 2.2 A 40 year-old male who is suspected to have pulmonary tuberculosis. (35 marks)
 - 2.3 A 5 year-old child having blood and mucus diarrhoea. (30 marks)

3. Write briefly on
 - 3.1 cerebrospinal fluid changes in meningitis. (35 marks)
 - 3.2 type IV hypersensitivity. (30 marks)
 - 3.3 polio vaccines. (35 marks)

4. State the causative pathogen/s and describe the microbiological investigations with special reference to collection and transport of specimens in the following conditions.
 - 4.1 Viral pneumonia in a 2 year-old child. (35 marks)
 - 4.2 Discoloured, brittle finger nails in a housewife. (30 marks)
 - 4.3 Suspected urinary tract infection in a catheterized patient. (35 marks)