



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

Tuesday 23rd October 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 7 day-old neonate brought to the emergency treatment unit with refusal of feeds and excessive crying. On examination he was febrile, irritable and had a bulging fontanelle.
 - 1.1 What is the most likely clinical diagnosis? (10 marks)
 - 1.2 Name **two (2)** most likely bacterial pathogens responsible for the above condition. (20 marks)
 - 1.3 List the microbiological investigations you would perform to confirm the clinical diagnosis stated in 1.1 above and describe the interpretation of the results of these investigations. (40 marks)
 - 1.4 Describe the empirical antimicrobial therapy for this neonate. (20 marks)
 - 1.5 List **two (2)** possible complications that could occur in this neonate if left untreated. (10 marks)

2. Briefly describe the steps that should be adopted in the following situations.
 - 2.1 Single deep stray dog bite on the foot of a 25 year-old male. (35 marks)
 - 2.2 A medical student informed the doctor that her room developed a vesicular rash over the trunk following 2 days of fever. (35 marks)
 - 2.3 A sample of blood collected for laboratory testing was accidentally spilt on the ward floor. (30 marks)

3. Write briefly on
 - 3.1 aminoglycoside antibiotics. (35 marks)
 - 3.2 Type I hypersensitivity. (35 marks)
 - 3.3 high level chemical disinfectants used in hospitals. (30 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 Urethral discharge in a 40 year-old male. (35 marks)
 - 4.2 Hypopigmented, non-inflammatory, large macular patches over the chest in a 16 year-old school boy. (30 marks)
 - 4.3 Profuse watery diarrhoea in a pilgrim returning from India. (35 marks)