



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
Third Examination for Medical Degrees Part I – April 2016
MICROBIOLOGY - Paper II

Friday 22nd April 2016

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 sixty year-old male was admitted to the Emergency Unit of the Teaching Hospital Karapitiya with a one week history of fever, cough and shortness of breath.
 - 1.1 What is the most likely diagnosis? (10 marks)
 - 1.2 What are the likely infective agents? (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? (10 marks)
 - 1.5 If this patient had acquired the infection from a health care facility what would be the likely organisms and the empirical treatment? (25 marks)
 - 1.6 How could you have prevented this infection in this patient? (10 marks)
2. Briefly describe the steps that should be adopted in the following situations.
 - 2.1 A medical student who had a needle stick injury while drawing blood from a dialysis patient. (35 marks)
 - 2.2 Adult male returning after a pilgrimage in India presents with profuse watery diarrhea. (35 marks)
 - 2.3 Making already used surgical instruments safe to be used in a new patient. (30 marks)
3. Write briefly on
 - 3.1 dengue fever. (35 marks)
 - 3.2 type I hypersensitivity. (35 marks)
 - 3.3 cephalosporin antibiotics. (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 Urinary tract infection in a 30 year-old female. (35 marks)
 - 4.2 Discoloured, thickened, brittle finger nails in a 50 year-old female. (30 marks)
 - 4.3 Fever, headache and neck stiffness in a 5 year-old child. (35 marks)