



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
Third Examination for Medical Degrees Part I - December 2011
MEDICAL MICROBIOLOGY - Paper II

Tuesday 6th December 2011

10.30 am to 12.30 pm

Answer ALL FOUR questions

Answer each question in a separate answer book

1. List the aetiological agents, describe the pathogenesis and antimicrobial management of the following conditions.
 - 1.1 Community acquired pneumonia (35 marks)
 - 1.2 Osteomyelitis (30 marks)
 - 1.3 Tinea corporis (35 marks)

2. Write on
 - 2.1 personal protective equipment used in an operating theatre. (35 marks)
 - 2.2 the use of moist heat as a method of sterilization. (30 marks)
 - 2.3 principles underlying the collection and transport of a urine sample for microbiological diagnosis of UTI. (35 marks)

3. Write on
 - 3.1 urthritis in a sexually active adult male. (35 marks)
 - 3.2 type III hypersensitivity. (30 marks)
 - 3.3 microbiological diagnosis of dengue virus infection. (35 marks)

4. A 25 year-old male medical student presented to the OPD complaining of fever for 10 days associated with headache, abdominal tenderness and constipation. On examination, he had splenomegaly, hepatomegaly and blanching pink macules over the front of the chest.
 - 4.1 What is the most likely diagnosis? (5 marks)
 - 4.2 Name **two** microorganisms capable of causing the condition stated in 4.1. (10 marks)
 - 4.3 Describe the **microbiological investigation/s** including the collection and transport of specimens that would help to confirm the diagnosis stated in 4.1 at this stage of the illness. (25 marks)
 - 4.4 Name an **immunologically based investigation** that may assist in the diagnosis of the condition stated in 4.1 and describe how the results are interpreted. (25 marks)
 - 4.5 Discuss the antimicrobial therapy of the condition stated in 4.1. (25 marks)
 - 4.6 Discuss the infection control measures that you would adopt when treating this patient in a medical ward. (10 marks)