



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
Third Examination for Medical Degrees (Part 1)
MEDICAL MICROBIOLOGY - Paper II - Essay

Tuesday 16th December 2008

10.30 am to 12.30 pm

Answer all **FOUR** questions

Answer each question in a separate answer book

1. List the appropriate microbiological investigations, describe the collection and transport of the relevant specimens and discuss the empirical antimicrobial therapy of the following conditions.
 - 1.1 Pyogenic meningitis in a 6 year old child. (35 marks)
 - 1.2 Pneumonia in a young adult. (35 marks)
 - 1.3 Urinary tract infection in a catheterized patient. (30 marks)

2.
 - 2.1 Describe the Poliovirus. (10 marks)
 - 2.2 Describe how the above virus is transmitted, its pathogenesis and the clinical manifestations. (30 marks)
 - 2.3 Describe the microbiological diagnosis of Poliomyelitis including specimen collection and transport. (35 marks)
 - 2.4 Discuss briefly the advantages and disadvantages of the vaccines available for prevention of Polio. (25 marks)

3. A young married female visits the Sexually Transmitted Infections (STI) clinic complaining of a vaginal discharge of one week duration.
 - 3.1 List the likely pathogens that may be the cause of her complaint. (10 marks)
 - 3.2 Describe the collection and transport of specimens to establish a microbiological diagnosis in this patient. (30 marks)
 - 3.3 Explain the pathogenesis of a bacterial and fungal agent that may be the likely cause of her complaint. (30 marks)
 - 3.4 Describe the antimicrobial management of the likely bacterial and fungal causes for her condition. (20 marks)
 - 3.5 Write briefly on the ethical issues involved in this situation and how you would advice those affected. (10 marks)

4. Explain the pathogenesis of the following case scenarios:
 - 4.1 Mycetoma in an agricultural worker. (25 marks)
 - 4.2 Varicella zoster in an elderly patient. (25 marks)
 - 4.3 Pneumonia in a HIV positive adult. (25 marks)
 - 4.4 Recurrent urinary tract infection in a newly married female. (25 marks)