



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

Tuesday 31<sup>st</sup> August 2010

10.30 am to 12.30 pm

Answer ALL FOUR questions

Answer each question in a separate answer book

1. A 36 year old man presented with fever and malaise for 2 weeks. On examination he had lymphadenopathy and hepatosplenomegaly. He also gives a history of sexual exposure to a human immune-deficiency virus (HIV) infected person 4 weeks ago.
  - 1.1 What is the probable diagnosis at this stage? (10 marks)
  - 1.2 How would you confirm your diagnosis microbiologically in this patient? (20 marks)
  - 1.3 Explain how HIV transmission can occur among humans. (15 marks)
  - 1.4 Describe the typical course of HIV infection in this patient, if untreated? (30 marks)
  - 1.5 What advice would you give to this patient and his family regarding infection control, if he is to be managed at home? (15 marks)
  - 1.6 Explain the ethical issues related to testing and reporting of HIV infections. (10 marks)
  
2. Discuss the infection control practices and/or other follow up preventive measures in the following situations.
  - 2.1 A 4 day old baby delivered in hospital, develops purulent eye discharge. (20 marks)
  - 2.2 An 8 year old child is admitted with blood and mucus diarrhoea and fever. (20 marks)
  - 2.3 A medical student residing in the hostel develops chicken pox. (20 marks)
  - 2.4 A soldier from the military camp is admitted with suspected meningococcal meningitis. (20 marks)
  - 2.5 A patient in the medical ward is diagnosed with pulmonary tuberculosis. (20 marks)
  
3. List the aetiological agents and discuss the empiric antimicrobial therapy of the following.
  - 3.1 Infective endocarditis in a child with a history of rheumatic fever. (25 marks)
  - 3.2 Community acquired pneumonia in an elderly male. (25 marks)
  - 3.3 Neonatal septicaemia. (25 marks)
  - 3.4 Onychomycosis in a gardener. (25 marks)
  
4. Write on
  - 4.1 chemical disinfection of instruments used in health care. (25 marks)
  - 4.2 intertrigo. (25 marks)
  - 4.3 the impact of the Expanded Programme of Immunisation (EPI) in Sri Lanka, in improving the health of the nation. (25 marks)
  - 4.4 microbiological investigations and interpretation of results in dengue virus infection. (25 marks)