



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA  
Third Examination for Medical Degrees Part I – September 2020  
MICROBIOLOGY - Paper II

Saturday 5<sup>th</sup> September 2020

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 65-year-old male was admitted to the hospital with fever, productive 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 antimicrobial therapy for this patient? (10 marks)
  - 1.5 If the patient had acquired the infection from a healthcare facility what would be the likely organisms and the empirical treatment? (25 marks)
  - 1.6 Name the vaccines available to prevent respiratory tract infections in patients of this age? (10 marks)
2. Briefly describe the steps that should be adopted in the following situations.
  - 2.1 Making already used fiberoptic endoscope safe to be reused in a new patient. (30 marks)
  - 2.2 A child who is diagnosed of having meningococcal meningitis. (35 marks)
  - 2.3 A boy was receiving modified 4-site schedule of post exposure prophylaxis for rabies following a major exposure. The dog died on the 5<sup>th</sup> day and was positive for rabies. (35 marks)
3. Write briefly on
  - 3.1 infection prevention and control in COVID 19 pandemic in the community. (35 marks)
  - 3.2 specific immunoglobulins. (35 marks)
  - 3.3 macrolide 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 Hypopigmented non inflammatory macular lesions over the chest of a farmer. (30 marks)
  - 4.2 Blood and mucus diarrhoea in a university student staying in a hostel. (35 marks)
  - 4.3 A 60-year old patient presenting with fever, headache, photophobia and neck stiffness. (35 marks)