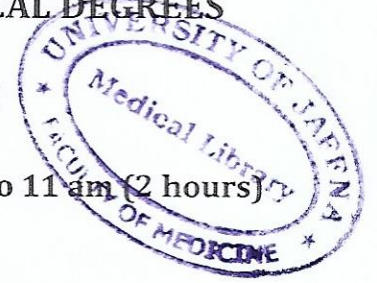




UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES

Part I (1st) 2020/2021
Microbiology - Paper II



Date: 30.11.2021

Time: 9 am to 11 am (2 hours)

Answer all **four** questions

Answer each question in a separate answer book.

- 1) A 38 year old man presented to the family physician with a 10 day history of flu like symptoms including anorexia, nausea and malaise. On physical examination, he was icteric with right hypochondrial tenderness. He frequently visits Thailand to meet his business partner. His blood report was positive for Hepatitis B surface antigen.
- 1.1 Briefly describe all possible modes of transmission of this infection to this patient. (20 marks)
- 1.2 List the **five (5)** possible risk factors for this infection in this patient. (15 marks)
- 1.3 Briefly describe the clinical sequelae of this infection. (20 marks)
- 1.4 State all the viral markers of this infection and discuss the usefulness of each marker with the disease progression. (30 marks)
- 1.5 Describe the measures that should have been taken by this patient to prevent this infection. (15 marks)
- 2) A 37-year-old man presented with a purulent urethral discharge and burning sensation during micturition of three days duration. He did not have urinary frequency or urgency. He gave a history of visiting sex workers.
- 2.1 State the most possible infective disease that gives rise to these clinical features and **two (2)** common causative organisms for this illness. (10 marks)
- 2.2 Describe how the aetiological diagnosis can be made in this patient for the infection you mentioned in **2.1**. (20 marks)
- 2.3 On examination, a painless ulcer was found on his penis. The ulcer had a clean base and rolled edges.



- 2.3.1 State the most possible infective illness that gives rise to the ulcer as mentioned above and the causative organism for this ulcer. (10 marks)
- 2.3.2 Discuss the tests used in Sri Lanka for the diagnosis of the infection you mentioned in 2.3.1 (40 marks)
- 2.4 Outline the management of this patient. (20 marks)

3)

- 3.1 List **five (5)** innate defence mechanisms of the respiratory tract. (20 marks)
- 3.2 Name **five (5)** causes of community acquired pneumonia and briefly describe the aetiological diagnosis for each (include sample(s), transport and tests used for diagnosis). (50 marks)
- 3.3 Identify the limitations of aetiological diagnosis of the pathogens stated in 3.2. (15 marks)
- 3.4 List **three (3)** bacterial causes of respiratory infections which can be prevented by immunization. (15 marks)

4) A 35year old female was admitted to the casualty ward with lower abdominal pain, backache, dysuria and high fever (39 °C) with chills.

- 4.1 Mention the probable diagnosis. (10 marks)
- 4.2 List the investigations useful for the confirmation of the diagnosis. (20 marks)
- 4.3 Describe the sample collection method for microbiological investigations. (30 marks)
- 4.4 List **three (3)** common organisms that cause this infection. (20 marks)
- 4.5 Outline the management plan for this patient. (20 marks)

