



UNIVERSITY OF JAFFNA, SRI LANKA  
SECOND EXAMINATION FOR MEDICAL DEGREES

Part I (2<sup>nd</sup>) 2016/2017

Microbiology -Paper II

Date: 10.03.2022

Time: 9 am to 11am (2 hours)

Answer all four questions.

Answer each question in a separate answer book.

1)

1.1) An eight-year-old girl developed sore throat, difficulty in swallowing and fever for the last three (3) days. On examination her anterior cervical lymph nodes were found to be enlarged and tender. Her physician wants to exclude streptococcal pharyngitis.

1.1.1 State the streptococcal species responsible for the above condition. (10 marks)

1.1.2 Name **two (2)** possible complications caused by the streptococcal species mentioned in 1.1.1. (10 marks)

1.1.3 Describe the pathogenesis of each complication you mentioned in 1.1.2. (40 marks)

1.2) A girl with the history of atopy developed urticaria after eating a sandwich made up with shellfish.

1.2.1 Name the type of hypersensitivity reaction responsible for the above condition. (10 marks)

1.2.2 Describe the pathogenesis of the hypersensitivity reaction mentioned in 1.2.1. (30 marks)

2) A 24-year-old medical student developed painful blisters along the border of the lips a few days before her exam. She had similar episodes around the time of exams previously as well which resolved without any specific treatment in a few days. She self-diagnosed it as cold sores.

2.1 Name the causative organism of this illness. (05 marks)

2.2 List the diseases caused by the organism you mentioned in 2.1. (20 marks)

2.3 Describe the source and modes of transmission of the causative organism for the diseases you mentioned in 2.2. (30 marks)

2.4 Describe briefly the pathogenesis of the illness in this patient. (25 marks)

2.5 Describe briefly the tests available for the diagnosis of the diseases you mentioned in 2.2. (20 marks)

1357

22.1

2  
14  
7  
160

- 3) A 14-year old boy was admitted to the Teaching Hospital, Jaffna with a history of fever, headache with body aches and pain for five (5) days. On examination a painless eschar was found on his scrotum. His blood sample was sent for the diagnosis of rickettsial disease.
- 3.1 State the most probable diagnosis and the causative organism for this infection. (10 marks)
- 3.2 Describe the source and modes of transmission of the causative organism for the disease you mentioned in 3.1. (10 marks)
- 3.3 Name **five (5)** possible complications of the disease mentioned in 3.1. (15 marks)
- 3.4 Describe the pathogenesis of the disease mentioned in 3.1. (30 marks)
- 3.5 Discuss the laboratory tests available for the diagnosis of the infection mentioned in 3.1. (35 marks)
- 4) 4.1 Explain the term 'Healthcare Acquired Infection' (HAI). (20 marks)
- 4.2 List **four (4)** HAI's and describe the means of transmission within the healthcare institution for each. (40 marks)
- 4.3 Outline the methods used to prevent each of the HAI's you've listed in 4.2. (40 marks)