

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES**  
**SECOND YEAR SECOND SEMESTER EXAMINATION – MARCH 2019**

**MLSIM2225 IMMUNOLOGY**

**PAPER II**

**Date: 13.03.2019**

**Time: 2 hours**

**ANSWER ALL SIX QUESTIONS.**

1.
  - 1.1. Name two (2) primary lymphatic organs. (10 marks)
  - 1.2. List five (5) differences between T lymphocytes and B lymphocytes. (20 marks)
  - 1.3. Briefly explain the role of macrophages in immune response. (30 marks)
  - 1.4. Describe the mechanism of B lymphocyte activation. (40 marks)
  
2.
  - 2.1. What is meant by Major histocompatibility Complex? (20 Marks)
  - 2.2. Mention the clinical importance of Major Compatibility Complex. (20 Marks)
  - 2.3. Briefly explain the different types of tissue transplantation. (30 Marks)
  - 2.4 Write notes on the biological importance of complements (30 Marks)
  
3.
  - 3.1.
    - 3.1.1. Mention three different types of antibody mediated hypersensitivity reactions. (10 Marks)
    - 3.1.2. Briefly describe the mechanism and diagnosis of cell mediated hypersensitivity reaction. (30 Marks)
  - 3.2. Briefly explain the pathogenesis and laboratory diagnosis of the following autoimmune disorders.
    - 3.2.1. Graves' disease (30 marks)
    - 3.2.2. Rheumatoid arthritis (30 marks)

4. Write notes on
  - 4.1. Innate immunity (30 marks)
  - 4.2. Monoclonal antibodies (40 marks)
  - 4.3. Live attenuated vaccines (30 marks)
  
5. Briefly describe the following laboratory tests
  - 5.1. Direct Immunofluorescence assay (50 marks)
  - 5.2. Agglutination techniques (50 marks)
  
6.
  - 6.1. List four types of ELISA technique. (10 marks)
  - 6.2. Describe each type of ELISA technique you mentioned in 6.1 with suitable diagrams. (60 marks)
  - 6.3 Briefly describe the uses of ELISA technique in a clinical laboratory. (30 marks)