



THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF MEDICAL LABORATORY SCIENCES
ACADEMIC YEAR 2023/2024 – SEMESTER I

BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
MDU5303 – IMMUNOLOGY & SEROLOGY
FINAL EXAMINATION

DURATION: 03 HOURS

DATE: 3rd April 2024

TIME: 09.30 AM –12.30 PM

INDEX NO:

Part B: Structured Essay Questions (40 marks)

Q1 : Cell mediated immunity is one arm of the adaptive immune system.

1.1 Define Major Histocompatibility Complex (MHC) polymorphism. (01 Mark)

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1.2 Briefly describe on the codominant expression of MHC molecules. (03 Marks)

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1.3 Illustrate (draw) antigen presentation on CD4⁺ T cells and CD8⁺ T cells. (06 Marks)

(Total 10 marks)

Q2: Humoral immunity is one arm of the adaptive immunity.

2.1 Name the antibody involved in mast cell sensitization. (01 Mark)

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2.2 List four (04) functions of human antibodies. (04 Marks)

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2.3 Illustrate (draw) the typical structure of an antibody. (05 Marks)

(Total 10 marks)

Q3: Tissue or organ transplantation is an important aspect of Medical Sciences.

3.1 State two (02) allorecognition pathways in transplantation. (02 Marks)

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3.2 Define the following terms. (03 Marks)

Syngeneic/Isograft.....

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Autograft.....

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Allograft.....

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3.3 Briefly describe the hyperacute rejection process occurs after organ transplantation. (05 Marks)

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(Total 10 marks)

Q4: Assays using monoclonal antibodies and lymphocyte isolation methods are widely used in the field of immunology .

4.1 State two (02) methods used for isolating the peripheral blood lymphocytes. (02 Marks)

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4.2 State three (03) negative features of monoclonal antibodies used in immunological assays. (03 Marks)

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4.3 State five (05) immunological assays done using monoclonal antibodies. (05 Marks)

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(Total 10 marks)

