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UNIVERSITY OF
SRI LANKA

17 MAR 2023

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF MEDICAL LABORATORY SCIENCE
ACADEMIC YEAR 2022/2023 – SEMESTER I



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

DURATION: 03 HOURS

DATE: 17th MARCH 2023

TIME: 09.30 AM – 12.30 PM

Part B: Structured Essay Questions (40 marks)

Q1 : Hypersensitivity reactions cause harm to the host.

1.1 What is the term used for circulatory shock and collapse due to generalized vasodilatation in type I hypersensitivity? (02 Marks)

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1.2 State how the following hypersensitivities are mediated in the table given below (04 Marks)

Type of hypersensitivity	Mediated through
Type I hypersensitivity	
Type II hypersensitivity	
Type III hypersensitivity	
Type IV hypersensitivity	

1.3 Illustrate the principle mechanism behind type I hypersensitivity. (04 Marks)

(Total 10 marks)

Q2: Failure of T cell tolerance can lead to many different autoimmune diseases.

2.1 Where does the central tolerance of T cells occur? (02 Marks)

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2.2 List four (04) mechanisms used by autoantibodies in autoimmunity. (04 Marks)

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2.3 Illustrate the mechanism of homeostatic control in peripheral tolerance. (04 Marks)

(Total 10 marks)

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

3.1 State two (02) allorecognition pathways in transplant rejection. (02 Marks)

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3.2 List three (03) clinical stages of transplant rejection. (03 Marks)

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3.3 List five (05) compatibility tests you would perform before a transplantation as a Medical Laboratory Technologist. (05 Marks)

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(Total 10 marks)

Q4: The immune system work against tumours in the human body.

4.1 What is meant by tumour heterogeneity? (02 Marks)

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Index Number.....

4.2 State two (02) main types of antigens found on tumour cells that could be identified by the immune system.. (02 Marks)

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4.3 Illustrate how tumour cells lacking the Major Histocompatibility Complex (MHC) class I lead to the activation of NK cells.. (06 Marks)

(Total 10 marks)

