



PAST PAPERS

<i>Faculty</i>	<i>Department / Section/Division</i>
<i>Not Applicable</i>	<i>Learning Resource Centre</i>

Past Papers

Faculty of Health Sciences

Higher diploma in Biomedical Sciences

(Year 2 – Semester I)

<i>Document Control & Approving Authority</i>	<i>Senior Director – Quality Management & Administration</i>
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<i>1st Issue Date: 2017.011.30</i>	<i>Revision No.00</i>	<i>Revision Date: 19.04.2023</i>	<i>Validated by: Librarian</i>
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Faculty of Health Sciences

Higher Diploma in Biomedical Science

INTRODUCTION TO IMMUNOBIOLOGY – HD 2143

2ND YEAR 1ST SEMESTER -REPEAT END EXAMINATION SEQ -BATCH 01

Date : 2023-03-07
Time : 9. 00A.M – 11.00P.M (2 HOURS)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of FOUR questions.
- Answer ALL questions.
- You should write legibly in black or blue ink.

- Question 01** (100 marks)
- 1.1 Briefly describe innate immune system. (10 marks)
- 1.2 State immune cells involved in innate and adaptive immune system. (15 marks)
- 1.3 Draw and label the common structure of an antibody. (15 marks)
- 1.4 Briefly describe the phagocytosis process of the phagocytic cells. (60 marks)
- Question 02** (100 marks)
- 2.1 Define the complement system. (10 marks)
- 2.2 State and describe the types of complement activations under complement system. (20 marks)
- 2.3 Briefly describe the membrane attack complex (MAC) formation. (30 marks)
- 2.4 Describe the classical complement pathway activation. (40 marks)
- Question 03** (100 marks)
- 3.1 State four routes of vaccine administration with examples. (20 marks)
- 3.2 Write the short notes. (80 marks)
- 3.2.1 Live vaccines.

3.2.2 Inactivated vaccines.

3.2.3 Primary vaccination.

3.2.4 Booster vaccination.

Question 04

(100 marks)

4.1 Define the term of "Allergen".

(10 marks)

4.2 Briefly define the hypersensitivity reaction.

(20 marks)

4.3 Classify the hypersensitivity reaction.

(30 marks)

4.4 Describe the type I hypersensitivity reaction.

(40 marks)



Faculty of Health Sciences
Higher Diploma in Biomedical Science
HD 2143- Introduction to Immunobiology
2nd year 1st semester
Batch 01
Repeat End Semester SEQ Examination

INDEX NUMBER:

Date : 26.01.2023
Time : 09.00 am – 12.00 am (2 hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **FOUR** questions.
- Answer **ALL** questions.
- You should write answers legibly in black or blue ink
- You are not allowed to take out the examination papers.

Question 01	(100 marks)
1.1 Briefly describe adaptive immune system.	(25 marks)
1.2 State three types of phagocytic cells.	(15 marks)
1.3 Classify the innate and adaptive immune systems with examples.	(60 marks)

Question 02 (100 marks)

- 2.1 Define the complement system. (15 marks)
- 2.2 Mention the types of complement system. (30 marks)
- 2.3 Describe the one of the complement pathways along with the illustration. (55 marks)

Question 03 (100 marks)

- 3.1 State the three types of vaccinations. (15 marks)
- 3.2 State three routes of vaccine administration with examples. (30 marks)
- 3.3 Write the short notes. (55 marks)
- 3.4.1 Live vaccines
 - 3.4.2 Inactivated vaccines.

Question 04 (100 marks)

- 4.1 Classify the lymphoid system. (25 marks)
- 4.2 State the functions of lymphoid organ thymus gland. (25 marks)
- 4.3 Briefly describe the origin and the maturation of immune cells in lymphoid organs. (50 marks)

Faculty of Health Sciences
Higher Diploma in Biomedical Sciences
Clinical Biochemistry HD2133
2nd Year 1st Semester
Batch 01
End Semester SEQ Examination



INDEX NUMBER:

Date : 24.01.2022
Time : 9.00 am – 11.00 am

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **FOUR** questions.
- Answer **ALL** questions.
- The paper will be for **TWO** hours
- You should write **answers in lined papers** legibly in black or blue ink.

Question 01 **(100 Marks)**

- 1.1 State the structure of the haemoglobin and its function. (15 marks)
- 1.2 What are the normal ranges for haemoglobin level for men and for women? (10 marks)
- 1.3 List most common 3 types of haemoglobin and describe their structure. (15 marks)
- 1.4 Which types of haemoglobin are present in sickle cell disease and what is the technique used to check the different types of haemoglobin in the blood. (20 marks)
- 1.5 Using a diagram discuss how the sickle cell disease is inherited from parents to children. (40 marks)

Question 02 **(100 Marks)**

- 2.1 State difference between the plasma and serum. (20 marks)
- 2.2 Discuss three different laboratory test results which obtained from clinical samples. (30 marks)
- 2.3 Mention three experimental errors which can occur in a laboratory test. (20 marks)
- 2.4 Discuss the intra and extra laboratory factors which interfering with laboratory test results. (30 marks)

Question 03**(100 Marks)**

A 45-year-old female presented at the medical center to carry out her annual blood cholesterol test.

- 3.1 Discuss the clinical laboratory path flow of a laboratory from patient sample submission step to test results dispatch. (30 marks)
- 3.2 Differentiate sensitivity and specificity. (20 marks)
- 3.3 State different types of blood collection techniques and mention the suitable method of blood collection method for the above-mentioned patient. (20 marks)
- 3.4 Clinician concluded that patient was suffering from Hypercholesterolemia after analysing the laboratory test results. Mention expected results of a patient suffering from hypercholesterolemia. (15 marks)
- 3.5 State the principle of test when determination of total cholesterol based on enzymatic method using Cholesterol Esterase, Cholesterol Oxidase and Peroxidase. (15 marks)

Question 04**(100 Marks)**

- 4.1 List 2 reasons for carrying out lipid profile test. (20 marks)
- 4.2 What are the pre-preparation steps of lipid profile test? (15 marks)
- 4.3 State the parameters in lipid profile. (15 marks)
- 4.4 Describe the production process of bilirubin within human body. (35 marks)
- 4.5 Mention the tests based on excretory function of liver. (15 marks)