



KISII UNIVERSITY

UNIVERSITY EXAMINATIONS

SPECIAL/SUPPLEMENTARY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE IN EDUCATION SCIENCE

SECOND SEMESTER, 2022/2023

(NOVEMBER/DECEMBER, 2022)

BIOT 312: IMMUNOLOGY AND IMMUNOTECHNOLOGY

STREAM: Y2 S2

TIME: 2 HOURS

DAY:

DATE: 00/12/2022

INSTRUCTIONS

- 1. Do not write anything on this question paper.***
- 2. Answer ALL the questions in section A [Compulsory] and any other TWO Questions from section B.***

SECTION A: 40 MARKS (ANSWER ALL QUESTIONS)

- Define MHC, types and state its functions in immunological responses (5 marks)
 - Explain agglutination and its types (6 marks)
 - Describe the classes of grafts by donor-recipient relationship (6 marks)
 - Distinguish between a particulate and soluble antigen (4 marks)
 - explain the sources of secondary immune deficiency citing suitable examples (8 marks)
 - Differentiate between affinity and avidity (4 marks)

- g. Explain the methodology of complement fixation test (5 marks)

SECTION B: 30 MARKS (ANSWER ONLY TWO QUESTIONS)

2. Discuss the ELISA tests, types and its role in medical diagnostics (15 marks)
3. Discuss the immunology of HIV/AIDS (15 Marks)
- 4.
- a. Describe the roles of monoclonal antibodies (8 marks)
 - b. Explain the types of transplantation rejections (7 marks)