



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

FOURTH YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF
BACHELOR OF BIOMEDICAL SCIENCES AND TECHNOLOGY
FIRST SEMESTER, 2023/2024
(AUGUST-DECEMBER, 2023)

BMED 419: IMMUNOLOGY AND BIOTECHEMISTRY

STREAM: Y4 S1

TIME: 2 HOURS

DAY: FRIDAY, 3:00 – 5:00 P.M.

DATE: 01/12/2023

INSTRUCTIONS

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

SECTION A: ANSWER ALL QUESTIONS (40 MARKS)

1. Distinguish between Th1 and Th2 response. (4 marks)
2. Explain briefly the various types of active and passive immunity. (4 marks)
3. Differentiate between primary and secondary immune responses. (4 marks)
4. Describe briefly the various types of vaccines. (6 marks)
5. Explain the different types of immune tolerance. (8 marks)
6. Describe the molecules used in recognition of microbes by innate immune system. (8 marks)
7. Elucidate the alternative component pathway. (8 marks)

SECTION B (30 MARKS) ANSWER ANY TWO QUESTIONS

8. Discuss the immune cells involved in innate immunity. (15 marks)
9. Explain the types of hypersensitivity reactions in humans. (15 marks)
10. Discuss the various properties and functions of various types of immunoglobulins. (15 marks)