



W1-2-60-1-6

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY
UNIVERSITY EXAMINATIONS 2023/2024
EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN MOLECULAR
MEDICINE

TIM 3100: PRINCIPLES OF IMMUNOLOGY

DATE: AUGUST 2024

TIME: 3 HOURS

INSTRUCTIONS: Attempt any FOUR questions

1. (a) Discuss any ten determinants of innate immunity (20 marks)
(b) Draw a well-labelled diagram of immunology (5 marks)
2. With the aid of a flow diagram, describe the process of haematopoiesis (25 marks)
3. (a) Give a brief account of various organs and tissues of the immune system (10 marks)
(b) Elucidate how extracellular pathogens are destroyed through the process of phagocytosis (15 marks)
4. Discuss various determinants of antigenicity and/or immunogenicity (25 marks)
5. Highlight various medical applications of antibodies (25 marks)
6. a) Describe various immune defence mechanisms against;
i. Bacterial infections (5 marks)
ii. Parasitic infections (5 marks)
iii. Viral infection (5 marks)
b) Describe ways of generating TCR repertoire (10 marks)