



MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER

**SCHOOL OF NATURAL RESOURCES TOURISM
& HOSPITALITY**

**BACHELOR OF SCIENCE IN ANIMAL HEALTH
AND PRODUCTION**

COURSE CODE: AHP 2108-1

COURSE TITLE: IMMUNOLOGY

DATE: 9TH DECEMBER, 2022

TIME: 0830-1130

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions

This paper consists of 2 printed pages. Please turn over

IMMUNOLOGY [120 Marks]

1. Describe the innate immune system (20 marks)
2. Describe the adaptive immune system (20 marks)
3. Using a well labelled diagram describe the structure of an immunoglobulin (20 Marks)
4. a) Name 13 animal diseases that are commonly vaccinated against, and the corresponding animal species affected (13 marks)
b) Define the term *serodiagnostic test* (1 mark)
c) Write short notes on Enzyme Linked Immunosorbent Assay (6 marks)
5. Give the properties of an ideal vaccine (20 marks)
6. a) Describe the importance of veterinary vaccines (12 marks)
b) Give possible causes of lack of efficacy in vaccines/vaccine failure (8 marks)

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