



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2013/2014

SECOND YEAR FIRST SEMESTR EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN ANIMAL SCIENCE
WITH INFORMATION TECHNOLOGY

(MAIN CAMPUS)

AAN 201: PRINCIPLES OF IMMUNOLOGY

Date: 25th November, 2013

Time: 2.30 - 4.30 p.m.

INSTRUCTIONS:

- **Answer ALL questions.**

Answer ALL Questions

SECTION A

1. a) Briefly explain the Mechanism of action of adjuvants **(6 marks)**
b) Outline the two general mechanisms for immunological tolerance **(2 marks)**
c) Outline the three (3) Pattern of Cytokine activities **(3 marks)**

- 2 a) Explain how an animal can be diagnosed for presence of tumour (Immunodiagnosis) **(2 marks)**
b) Explain the contribution of Jernner Edward to modern immunology **(2 marks)**
c) Name and state the functions of primary lymphatic organs **(4 marks)**
d) Outline the four mechanisms that an antibody can use to combat a pathogen **(4 marks)**

4. a) Outline any three (3) the cardinal features of immune response **(3 marks)**
b) Name the major Biological consequences of Complement activation in animal body **(4 marks)**
c) Name two Autoimmune Muscle Diseases **(2 marks)**

- 5 a) List the different pathways of compliment activation **(3 marks)**
b) Outline the disadvantages of live vaccine **(5 marks)**

SECTION B

6. Antigens are substances, which are able to induce detectable immune responses when introduced into an animal host. Discuss the Requirement for antigenicity **(10 marks)**

7. Name and discuss the functions of the subsets of T CELLS **(10 marks)**

8. Describe hypersensitivity reaction under the following subheading ;Definition, Types and Reaction of immediate hypersensitivity citing cells involved **(10 marks)**