

CHUKA



UNIVERSITY

Knowledge is Wealth (*Sapientia divitia est*) Akili ni Mali

DEPARTMENT OF BIOLOGICAL SCIENCE

Telephones: 020-2310512/18
Direct Line:

Email: info@chuka.ac.ke,

P. O. Box 109-60400, Chuka
Website: www.chuka.ac.ke

ZOOL 340 Principles of Immunology resit/special

Streams; BSc Microbiology

Time: 2 hours

Instructions:

- Answer all questions in section A and any two question in section B
- Do not write anything on the question paper

SECTION A (30MKS)

1. a) Describe the contribution made by the following early scientists in the development of immunology

i) Louis Pasteur	(1mks)
ii) Robert Koch	(1mks)

b) Distinguish between innate and adaptive immunity (3mks)
- 2a) State the functions of macrophages (2mks)

b) Explain immunological role of CD 4+ Tcells.	(3mks)
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3. Explain innate defense mechanisms against pathogenic attack in the respiratory system (5mks)
- 4 Describe the role of complement system in the immune system (5mks)
- 5 Describe the mechanisms of action by antibodies during an immune response (5mks)
6. Describe the methods used to prevent immunological rejection of transplants. (5mks)

SECTION B (40Marks)

- 7 a) Describe structure and functions of organs of the immune system (12mks)
- b) Discuss any two autoimmune disorders (8mks)
8. Describe structure and functions of cells of the immune system (20mks)
- 9 Describe the mechanism of action of the adaptive immune system in immunological defence against pathogenic attack (20mks)