



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (BIOLOGY) AND BACHELOR OF EDUCATION

SZL 307: FUNDAMENTALS OF IMMUNOLOGY

DATE: Wednesday, 7th December, 2011

TIME: 11.00a.m. – 1.00p.m.

INSTRUCTIONS

Answer **ALL** questions from **Section A** and any **ONE** question from **Section B** within each section questions carry equal marks. Illustrate your answers with diagrams and give examples where appropriate.

SECTION A: Answer **ALL** questions. [40 Marks]

1. Explain each of the following:
 - (a) Conditions that may be associated with neonatal thymectomy.
 - (b) Conditions associated with impaired thymic development.
2. Describe briefly the characteristics of adaptive immune response.
3. Explain the role of mucous membrane in innate immunity.
4. Describe briefly the architecture of the immune system.
5. Describe briefly the ontogeny and function of a mast cell.
6. Explain the combinatorial diversity of an antibody molecule.
7. Describe briefly the conditions that favour type 1 allergic reactions.
8. Outline the functions of leucocytes.

SECTION B: Answer any **ONE** question. [30 Marks]

9. Immunoglobulins can serve as antigens. Discuss this statement.
10. Write an essay on central lymphoid organs.