



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

SZL 408 : APPLIED IMMUNOLOGY

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DATE: THURSDAY 29TH MARCH 2012

TIME: 2.00 P.M. – 4.00 P.M.

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INSTRUCTIONS

Answer **ALL** questions in Section A and **ONE** question in Section B.
Illustrate your answers with diagrams and give examples where appropriate.

SECTION A: Answer ALL questions (40 marks)

1. Describe different types of grafts.
2. Explain the basis of genetic diversity in a population
3. Vaccines may fail to induce the desired protection. Explain this statement.
4.
 - a) Explain the basis of paternity exclusion testing
 - b) A mother and baby blood groups are “B” and “O” respectively. The suspected father of the child blood group is “AB”, Determine if the suspect could indeed be the father.
5. Cyclosporin A is a good example of an immunosuppressive drug. Explain its mode of Action.
6. Describe briefly immune recognition in adaptive immune response.

7. Describe briefly principle and application of the following tests
 - a) Indirect ELISA
 - b) Coombs' test

8. Fill in the blank spaces for correct interpretation of blood group result as observed in a laboratory.

Antisera				
RESULTS	Anti A	Anti B	Anti Rh	Interpretation of blood group
Agglutination	Positive	Negative	Negative	A negative
Agglutination	Negative	Positive	Negative	-
Agglutination	Positive	Positive	Negative	-
Agglutination	Negative	Negative	Negative	O negative
Agglutination	Positive	Negative	Positive	-
Agglutination	Negative	Positive	Positive	-
Agglutination	positive	positive	Positive	-

SECTION B: Answer any ONE question (30 marks)

9. Write an essay on human leukocyte antigen typing

10. Discuss nucleic acid vaccines