



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

INSTITUTIONAL BASED PROGRAMME (IBP) – AUGUST SESSION

EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE

SZL 543: MOLECULAR IMMUNOLOGY AND IMMUNOGENETICS

DATE: Tuesday, 3rd January, 2012

TIME: 9.00 a.m. – 12.00 p.m.

INSTRUCTIONS:

ALL questions carry equal marks. Illustrate your answers with diagrams wherever appropriate. Answer any **FOUR** questions.

1. Compare and contrast the recombinant DNA synthesis of insulin with the natural one.
2. Discuss how the regulation of gene expression in eukaryotic organism differs from that in a prokaryotic organism.
3.
 - a) Distinguish lethal from conditional lethal mutation.
 - b) Describe specific site mutagenesis.
4. Discuss the structures of two synthetic analogs, their naturally occurring forms and their medical applications.
5. Describe the southern hybridization procedure and its applications.