



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2011/2012

**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN HEALTH RECORDS AND INFORMATION MANAGEMENT AND
HEALTH SERVICE MANAGEMENT**

HEH 403: ENVIRONMENTAL TOXICOLOGY

DATE: Tuesday, 27th March 2012

TIME: 4.30 p.m. – 6.30 p.m.

INSTRUCTIONS:

SECTION A: Answer all the questions in this section. This section carries 20 marks.

1. Define the following terms as used in Toxicology giving an example in each case.
 - (a) Exposure (2 marks)
 - (b) Risk Assessment (2 marks)
 - (c) Acute toxicity (2 marks)
 - (d) Systemic toxicity (2 marks)
 - (e) LD₅₀ (2 marks)
2. Explain the factors which influence the extent of toxicity and end-points in toxicological assessments. (6 marks)
3. Differentiate between the following interactions in environmental toxicology. (4 marks)
 - (i) Potentiation and Synergistic
 - (ii) Tolerance and Antagonism

SECTION B: Attempt Question ONE and any other TWO Questions. Question ONE carries Twenty (20) marks while the other Questions carries Fifteen (15)

1. (a) As an environmental toxicologist you have been informed of the intention to introduce new pesticide to the Kenyan farmers, explain the steps you will undertake to establish the safety of the pesticide before it is introduced into the market. (15 marks)
- (b) Discuss four processes of environmental toxicokinetics. (5 marks)
2. Discuss the characteristics and elements of exposure pathways in environmental toxicology. (15 marks)
3. (a) Explain what is meant by dose-response relationship in environmental toxicology. (15 marks)
- (b) Describe the different dose-response relationships in environmental toxicology that you know. (15 marks)
4. Giving specific examples, describe the different categories of toxicants that you know. (15 marks)
5. Discuss in details the risk assessment process in environmental toxicology. (15 marks)

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