

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF ENVIRONMENTAL SCIENCE
DEPARTMENT OF ENVIRONMENTAL SCIENCE AND HEALTH
BACHELOR OF ENVIRONMENTAL SCIENCE HONOURS DEGREE
SUPPLEMENTARY EXAMINATIONS

INTRODUCTION TO ECOTOXICOLOGY: ESH 2204

August 2012

Time allowed: 3 Hours

Total Marks: 100

INSTRUCTIONS:

Answer any FOUR questions. Each question carries 25 marks

1. a) Write an essay on the processes that describe toxicokinetics of xenobiotics . (20 marks)
- b) List the factors that affect the absorption of xenobiotics by living organisms. (5 marks)
2. a) Give the biochemical basis for mechanism of action of pyrethroid pesticides. (15 marks)
- b) Outline the importance of dose response relationship in toxicological studies. (10 marks)
3. a) Briefly describe the following terms:
 - i) LOEL (3 marks)
 - ii) LD50 (3 marks)
 - iii) NOAEL (3 marks)
 - iv) Threshold (3 marks)
- b) Describe the toxicological tests undertaken before a new product is marketed. (13 marks)
4. a) Write an essay on phytoestrogens. (15 marks)
- b) Discuss the sources and nature of effluent from an abattoir. (10 marks)
5. a) Describe a method of detecting presence of endocrine disruption chemicals in the aquatic systems (13 marks)
- b) Using named examples describe predictive and retrospective testing (12 marks)
6. Discuss risk assessment and ecological risk assessment