



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

(CITY CAMPUS)

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF ENVIRONMENTAL SCIENCE

ENS 807: TOXIC SUBSTANCES AND ENVIRONMENTAL HEALTH

DATE: Monday, 29th January 2018

TIME: 5.30 p.m. - 8.30 p.m.

INSTRUCTIONS:

Answer Question One and any other FOUR.

Illustrate your answers using diagrams where necessary.

1. (a) Discuss the following as used in toxicology;
 - (i) Potency (3 marks)
 - (ii) Antagonistic Effect (3 marks)
 - (iii) Dose (3 marks)
- (b) Using a named food chain, explain the process of Bio magnification and its effect in living organisms. (12 marks)
2. Explain THREE methods used to test toxicity in living organisms, and for each give the advantages and disadvantages. (12 marks)
3. Explain FIVE factors which influence toxicity of toxicants to living organisms in an aquatic environment. (12 marks)
4. Discuss the occupational hazards in a named workplace, effects they cause and the mitigation measures put in place. (12 marks)
5. Critically evaluate the contribution of climate variability to global burden of diseases. (12 marks)
6. Discuss the economic and ecological impacts of eutrophication of a water body. (12 marks)
7. "Pesticides are a necessary evil." Discuss. (12 marks)