



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY  
SCHOOL OF HEALTH SCIENCES**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN PUBLIC  
HEALTH 2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER 2018/2019  
MAIN**

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**COURSE CODE: HCD 3215**

**COURSE TITLE: ENVIRONMENTAL HEALTH**

**EXAM VENUE:**

**STREAM:**

**DATE:**

**EXAM SESSION**

**TIME: 2HOURS**

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**Instructions:**

- 1. Answer all questions in Section A and any other 2 questions in Section B**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

## **Section A**

1. Define the objectives of toxicity testing (2 marks)
2. Describe the dose response curve and its assumptions (4 marks)
3. Suppose that of 120 students who consumed pond water, 2/3 of them got stomachache, and of 50 students who consumed Dasani, 4/5 of them didn't get stomachache. MAKE a 2 by 2 table, calculate the relative risk and interpret the result (3 marks)
4. Discuss briefly the impact of environmental acidification on human health? (3 marks)
5. Mention any three routes of disease transmission (3 marks)
6. What are the common symptoms of lead poisoning? (3 marks)
7. Define threshold and explain its significance in establishing toxicity (3 marks)
8. Describe clinical ecology in relation to environmental health. (3 Marks)
9. Differentiate between an exposure and a dose (4 marks)
10. Toxicants undergo certain processes in the body. Clearly explain the following processes (1 mark each)

Disposition

Distribution

## **Section B**

1. You are an environmentalist based at Bondo. Every Saturday when you attend community meetings, the residents complain of a compound that is affecting them after they have drunk water. As environmental toxicologist how will you go about solving this predicament? (20 marks)
2. Discuss factors influencing toxicity in the human body (20marks)
3. Discuss global warming:-causes, impacts and mitigation measures (20marks)
4. a) Describe the health hazards and risks including their chronic lethal effects and impact to man and the environment. (10 Marks)  
b) Explain the techniques currently used for assessment of environmental health and toxicology (10 Marks)