JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

PUBLIC HEALTH/COMMUNITY HEALTH AND DEVELOPMENT

4TH YEAR 1ST SEMESTER 2022/2023 ACADEMIC YEAR

KISUMU CAMPUS

COURSE CODE: **HCB 1405**

COURSE TITLE: **ENVIRONMENTAL TOXICOLOGY**

EXAM VENUE: **STREAM: BSc Public Health**

DATE: **EXAM SESSION:**

TIME: 2.00 HOURS

Instructions:

1. **Answer all the questions in Section A and 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: ANSWER ALL QUESTIONS

1. Toxicity is rarely a single molecular event but rather a cascade of events, explain?

2. List any three inorganic pesticides.

3. Briefly define the terms toxins, toxicants and toxicology.

4. List any three advantages of synthetic pyrethroids

5. Outline three methods employed in toxicity testing.

6. Mention any three sites of exposure pathways of environmental chemicals to humans.

7. Define the terms,

Exposure dose

Absorbed dose

Administered dose.

8. what are the major organs involved in excretion toxins from the body.

9. With examples briefly define endo-toxins?

10. What is acute, sub-chronic and chronic toxicity?

SECTION B: ANSWER QUESTION ONE AND ANY OTHER QUESTION

1. Classify and discuss biological pesticides (20mks).

2. Discuss how health effect evaluation is conducted during public health assessment as described by the United States agency for toxic substances and diseases registry (10 mks). Briefly describe how the following can be drawn from such public health assessment

1. Conclusion and recommendation (5mks)
2. Public health action (5 mks)

3. Discuss dose-response relationship (20 mks)

4. Discuss different factors that influence toxicity effects of chemicals to humans.