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UNIVERSITY EXAMINATIONS 2024/2025

FOURTH YEAR, FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMMUNITY HEALTH AND DEVELOPMENT

HPP 3404: ENVIRONMENTAL POLLUTION, TOXICOLOGY AND CONTROL

DATE: JANUARY 2025

TIME: 2 HOURS

INSTRUCTIONS: *Answer questions One and any other Two*

QUESTION ONE (30 MARKS)

- a) Explain the meaning of the following concepts
 - i. Acute toxicity and chronic toxicity (2 Marks)
 - ii. Xenobiotics (1 Mark)
 - iii. pharmacokinetics (1 Mark)
 - iv. Dose response (1 Mark)
- b) Highlight factors affecting distribution of a toxic chemical substance (5 Marks)
- c) Highlight any four effects of lead pollution (5 Marks)
- d) Enumerate factors that affect dermal absorption of toxic substances (5 Marks)
- e) Show any five methods of testing the toxicity of a substance (5 Marks)

QUESTION TWO (20 MARKS)

- a) Discuss all the elements of an exposure pathway before a toxin reaches its end point. (10 Marks)



MUST is ISO 9001:2015 and



ISO/IEC 27001:2013 CERTIFIED

b) Discuss categories of substances that can act as environmental pollutants (10 Marks)

QUESTION THREE (20 MARKS)

a) Discuss the end points for measuring toxicity of a substance (10 Marks)

b) Discuss possible causes of air pollution and suggest possible solutions in order to enhance human health and environmental integrity (10 Marks)

QUESTION FOUR (20 MARKS)

a) Discuss the factors affecting inhalation of a toxic substance (10 Marks)

b) Discuss all the stages involved in clinical investigations when testing the efficacy and toxicity of substances (10 Marks)

