

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE

CHEM 448: ENVIRONMENTAL CHEMISTRY II

STREAMS: BSc.

TIME: 2 HOURS

DAY/DATE: TUESDAY 19/12/2023

8.30 A.M. – 10.30 A.M.

INSTRUCTIONS

- Do not write anything on the question paper
- Answer question ONE and any other two questions

Question one [30 marks]

- Describe how chemical oxygen demand in water is determined. [5 marks]
- Certain diseases may result from presence or absence of certain minerals in water. Using examples, explain this statement. [5 marks]
- Give five (5) biochemical effects that may result from binding of a toxicant to a receptor. [5 marks]
- Briefly discuss teratogenesis. [5 marks]
- What are the major components of environmental management? [5 marks]
- How is site characteristic an important aspect to be considered during the designing of environmental impact assessment process. [5 marks]

Question two [20 marks]

- Describe how total hydrocarbon content in air is determined using flame ionization technique. [10 marks]
- Discuss use of fabric filters in cleaning of gaseous effluents. [10 marks]

Question three [20 marks]

Discuss the four steps that are used for treatment of sewage and industrial waste water. [20 marks]

Question four [20 marks]

Discuss effects and ways of controlling noise.

[20 marks]

.....