

CHUKA



UNIVERSITY

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**EXAMINATION FOR THE AWARD DEGREE OF
BACHELOR OF SCIENCE DEGREE IN ENVIRONMENTAL SCIENCE**

ENSC 332: ENVIRONMENTAL RISK ASSESSMENT

STREAMS: ENSC Y3 S2

TIME: 2 HOURS

DAY/DATE: THURSDAY 9/04/2020

8.30 A.M - 10.30 A.M.

INSTRUCTIONS

- Answer all Questions in Section A and any other Two questions in Section B.
- Do not write anything on the question paper

SECTION A (30 MARKS)

1. Just because something is hazardous, it doesn't mean it will cause harm. Substantiate this statement using three relevant examples. [6 Marks]
2. Compare and contrast environmental risk assessment and environmental impact assessment. [6 Marks]
3. Discuss fault tree analysis as a technique for hazard identification and control. [6 Marks]
4. Explain briefly the three basic questions that environmental risk assessment processes endeavour to answer. [6 Marks]
5. Using a diagram, explain the concept of threshold dose in relation to risks associated with exposure to toxins. [6 Marks]

SECTION B (40 MARKS)

6. (a) Suppose you are contracted to carry out an environmental risk assessment for a certain chemical plant in your home county. Describe the procedure you will follow in carrying out the assignment. [12 Marks]
- (b) Explain the significance of the exercise you will be carrying out to both the industry and the society at large. [8 Marks]
7. (a) Explain five methods that are used in engaging the public while carrying out environmental risk assessments. [10 Marks]
- (b) Discuss five factors that influence how people perceive environmental risks. [10 Marks]
8. (a) Discuss four major principles that guide decision making in environmental risk assessments. [12 Marks]
- (b) Explain the factors that are considered in the prioritization of risks identified during environmental risk assessments. [8 Marks]

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