

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE  
OF BACHELOR OF SCIENCE

ECON 445: ENVIRONMENTAL ECONOMICS

STREAMS: BSC

TIME: 2 HOURS

DAY/DATE: MONDAY 09/12/2019

11.30 A.M. – 1.30 P.M.

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INSTRUCTIONS: Answer question ONE and any other TWO questions

**QUESTION ONE**

- (a) Discuss the following terms as used in economics [10 marks]
- (i) Environmental economics
  - (ii) Resource economics
  - (iii) Externality
  - (iv) Public good
  - (v) Sustainability
- (b) Discuss the concepts of sustainability [5 marks]
- (c) Water users associations are public utility providers of water in different areas of the country. Using relevant illustrations, discuss how efficient allocation of water is attained [15 marks]

**QUESTION TWO**

- (i) Using a diagram, discuss the relationship between the environment and economic growth [15 marks]
- (ii) Discuss the Coase theorem of transaction cost as applied in environmental economics [5 marks]

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### QUESTION THREE

- (i) Discuss the optimal pollution levels with assimilative capacity [10 marks]
- (ii) Consider the actions of a processor located upstream and releases effluents into a river utilized by other users located downstream. Discuss how efficiency can be attained in containing the externality. [10 marks]

### QUESTION FOUR

- (i) Discuss the criteria of choosing the best environmental policies [5 marks]
  - (ii) The mix and distribution of greenhouse gases within the atmosphere can modify the climate. Discuss strategies that have been identified to be used in combating climate change. [15 marks]
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