



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

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MAY – AUGUST 2021

Ext 1022/23/25

FACULTY OF ARTS AND SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

REGULAR PROGRAMME

ECN 405: NATURAL RESOURCE ECONOMICS

Date: AUGUST 2021

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

Q1.

- a. Identify 5 benefits of cleaning up a river flowing through an industrial city.
(5 marks)
- b. Using examples to explain, illustrate the following concepts in natural resource economics:
 - i. Opportunity cost and scarcity. (5 marks)
 - ii. A classification of resources. (5 marks)
 - iii. Freeriding and transaction costs. (5 marks)
- c. Using a graphical illustration, explain Gordon's model of full rent dissipation versus group optimum in CPRs appropriation. (10 marks)

Q2.

- a. Describe the kinds of conflict that may arise in the use and management of a forest resource system. (10 marks)
- b. Use an example to explain the concept of Hotelling/scarcity rents. (5marks)
- c. Illustrate the relationship between the rate of resource exploitation and its supply and demand. (5 marks)

Q3.

- a. In reference to a country of choice, identify 5 renewable and 5 non-renewable resources. For each show the challenges of its utilization and management. (10 marks)
- b. Clearly illustrate the relationship between natural resource efficient allocation and management and Sustainable Development. (5 marks)
- c. Outline the socio-economic and environmental significance of wildlife resources. (5 marks)

Q4.

- a. Argue for rising prices of an increasing scarce natural resource. (10marks)
- b. Explain why the Malthusian predictions on the relationship between natural resources and human population have not been witnessed to date. (10marks)

Q5.

- a. Illustrate the opportunity cost of preserving/conserving a swamp area by the government. (5 marks)
- b. Use an example to illustrate the amenity/aesthetic and economic values of recreational resources. (5 marks)
- c. For a proposed chemical factory in Machakos County, give 5 possible negative environmental impacts and suggest mitigation measures to deal with each. (10 marks)

END

DET: MAY 2021