KENYATTA UNIVERSITY

EXAMINATION FOR THE DEGREE OF BACHELOR OF REAL ESTATE MANAGEMENT

BRE 303: NATURAL RESOURCE ECONOMICS

1ST SEMESTER 2021/2022 **TIME: 2 HOURS**

INSTRUCTIONS:

Answer Question ONE and any other TWO Questions

Question ONE

Organisms do not live in isolation, but in functioning communities which are inseparable from the environment. As a natural resource economist, you have been invited to give a lecture on ecosystems and the environments in which they operate in:

(a) Discuss the various classifications of natural resources, citing examples of each classification. (12 marks)

(b) The environment is viewed as a composite asset that provides a variety of services. With relevant examples, outline whether the environment is a closed or open system. (4 marks)

(c) Define what an 'externality' is and with examples, distinguish between positive and negative externalities. (5 marks)

(d) Improperly designed property rights system hinders the efficient allocation of resources. Discuss how the following factors contribute to the above:

- (i) Government Failure (2 marks)
- (ii) Monopolies (2 marks)

(e) Normative economic analysis helps to point the way towards solutions to environmental problems

- (i) Distinguish between positive and normative economic analysis. (2 marks)
- (ii) Which three steps are followed in normative analysis? (3 marks)

Question Two

(a) Define and distinguish the following concepts:

(i) Static Efficiency and Dynamic Efficiency (4 marks)

(ii) Tangible and Intangible Benefits. (4 marks)

(b) Natural resources have three main characteristics. With relevant examples highlight these characteristics. (6 marks)

(c) (i) Define non-use values (2 marks)

(ii) Outline two (2) non-use values derived from benefits of using the environment as a resource. (4 marks)

Question Three

(a) What are property rights? (1 mark)

(b) Discuss the three (3) main characteristics that an efficient property rights structure should exhibit. (9 marks)

(c) Highlight five (5) circumstances under which a system of free markets would sustain an efficient allocation resources. (10 marks)

Question Four

(a) The definition of environmental sustainability has evolved over decades due to rapid urbanization, industrialization and population growth of man. Discuss the development of the sustainability criterion in the following contexts:

(i) John Rawls Philosophy (5 marks)

(ii) John Hartwicks's Philosophy (5 marks)

(iii) Modern Environmental Sustainability criterion (5 marks)

(b) Briefly state the (2 classifications of economic instruments used as incentives to manage resources sustainable). (5 marks)

Question Five

Natural resource valuation techniques attempt to determine the willingness to pay or accept for the beneficial uses or services that natural resources provide individuals and communities. Discuss the advantages and limitations of:

(a) Hedonic Pricing Method (10 marks)

(b) Contingent Valuation Method (10 marks)