



(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2021 / 2022 ACADEMIC YEAR

FOURTH YEAR 1ST SEMESTER
MAIN EXAMINATION

**FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE
EDUCATION AND EXTENSION & AGRICULTURAL ECONOMICS AND
RESOURCE MANAGEMENT**

COURSE CODE: AEC 400
COURSE TITLE: NATURAL RESOURCE MANAGEMENT

DATE: 23RD MAY 2022

TIME: 9 – 11 AM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and any other TWO Questions.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

QUESTION ONE

30 MARKS

- (a) Differentiate between the following terms as used in Natural resource management **(12 marks)**
- (i) Ex-situ conservation and in-situ conservation.
 - (ii) Open access and common property systems
 - (iii)Regulating and supporting ecosystem functions
- (b) Discuss four conservation strategies for non-renewable resources **(8 Marks)**
- (c) Explain the benefits of doing an Environmental Impact Assessment **(10 Marks)**

QUESTION TWO

20 MARKS

Using suitable examples, explain the following approaches to natural resource management

- (i) Ecological approach
- (ii) Technological approach
- (iii)Ethnocultural approach
- (iv)Economic approach

QUESTION THREE

20 MARKS

- (a) The Total economic Value of an ecosystem is typically disaggregated into two categories of Values: (i) use values and (ii) non-use values. Briefly discuss these values. **(12 Marks)**
- (b) According to the Millennium ecosystem assessment framework, what are the different categories of services the environment provides to households? **(8 Marks)**

QUESTION FOUR

20 MARKS

- (a) Explain the term market failure **(5 Marks)**
- (b) Describe the sources of market failure that pose a challenge to achieving an efficient allocation of Natural resources **(15 Marks)**

QUESTION FIVE

20 MARKS

Briefly explain the rationale behind community participation in natural resources management and with the aid of examples discuss the successes and challenges of community-based natural resources management approaches.