



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied & Health Sciences

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

DIPLOMA IN ENVIRONMENTAL SCIENCE
(DES 12 S)

AES 2213

ENVIRONMENT AND NATURAL RESOURCE ECONOMICS

SEMESTER: END OF SEMESTER EXAMINATIONS

SERIES: APRIL/MAY, 2014

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

-Answer **ALL** Questions in section **A** and any **TWO** questions in section **B**

-Answer any other **TWO** questions

This paper consists of **2 PRINTED** pages

SECTION A: (COMPULSORY)

QUESTION ONE

- (a) Define the term natural resources (2 marks)
- (b) Giving specific examples, differentiate renewable resources and non-renewable resources. (5 marks)
- (c) What do you understand by the term “property rights”? (3 marks)
- (d) Using examples, give the difference between “common property resources” and Open access resources” (5 marks)
- (e) State at least **THREE** characteristics of property rights. (3 marks)
- (f) Briefly explain the meaning of the term “externalities” (3 marks)
- (g) State and briefly explain at least **THREE** characteristics of an idea scarcity indicator. (5 marks)
- (h) Differentiate an “Open System” and a “Closed System” with reference to the environment. (4 marks)

SECTION B: (Answer any TWO questions from this section)

QUESTION TWO

Natural resources systems run by the central governments tend to be mismanaged. Discuss the problems facing state management of natural resources. (15 marks)

QUESTION THREE

The environment is referred to as a “Closed System” Using a well elaborated diagram, justify why the environment is a closed system. (15 marks)

QUESTION FOUR

- (a) Explain the term “tragedy of the commons” as it applies to management of natural resources. (15 marks)
- (b) Briefly describe **TWO** conditions that are deemed necessary for “tragedy of the commons” (5 marks)

QUESTION FIVE

Using appropriate diagrammatical illustrations, describe the following:- (15 marks)

- (a) Maximum economic yield (MEY)
- (b) Maximum sustainable (Yield) (MSY)
- (c) Resource rent (profits)