

## UNIVERSITY OF SWAZILAND FINAL EXAMINATION PAPER

PROGRAMME:

BSC ABE 4

**BSC AGRON 4** BSC AG ED 4

**COURSE CODE:** ABE 404

TITLE OF PAPER: NATURAL RESOURCES MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

SPECIAL MATERIAL REQUIRED: NONE

**INSTRUCTIONS:** ANSWER QUESTION ONE AND ANY TWO OTHER QUESTIONS.

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# SECTION A. COMPULSORY QUESTION

#### **Question One**

- a. Discuss how the law of supply and demand as applied in market economies negatively affects natural resources conservation? /10
- b. As a general rule, the more organisms are removed from a food web, the more vulnerable it is. Discuss this statement using real life practices as examples.

/10

c. Explain why population histograms are important when studying human populations and how is this information useful in natural resources conservation?

/10

d. Discuss the significance of environmental law in natural resources management.

/10

[40 marks]

# SECTION B. ANSWER ANY TWO QUESTIONS

#### **Question Two**

 Discuss the relationship between sustainable forest management and collaborative forest management. In your discussion make reference to the following:

| i.   | Forests on customary and trust lands                     | /4  |
|------|--|-----|
| ii.  | Definition of CFM  | /4  |
| iii. | Community Based Forest Management System                 | /8  |
| iv.  | Environment for Community Based Forest Management System |     |
|      | (discuss at least two factors)                           | /6  |
| v.   | Ecosystems goods and services,                           | /8  |
|      |  | 500 |

[30 marks]

### **Question Three**

a. Briefly explain what is meant by the following terms;

| i.   | Sustainable land management    | /5   |
|------|--------------------------------|------|
| ii.  | Green taxes                    | /5   |
| iii. | Accounting for natural capital | /5   |
| iv.  | Opportunity cost               | /5   |
| v.   | Natural resources              | - /5 |
| vi.  | Conservation                   | /5   |

[30 marks]

#### **Question Four**

- Explain how human resource development is important for economic growth and subsequently contribute to sustainable development of a country? /10
- b. Discuss the importance of the nitrogen cycle in ecological system management, explaining the various paths of nitrogen in both biotic and abiotic factors of the biosphere.

[30 marks]