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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME: BSc. in Agricultural Economics and Agribusiness
Management Year 4

COURSE CODE: AEM 403

TITLE OF PAPER: ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS

TIME ALLOWED: TWO (2): HOURS

INSTRUCTION: 1. ANSWER ALL FOUR QUESTIONS
2. EACH QUESTION CARRIES 25 POINTS

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CHIEF INVIGILATOR

Question 1

- a) Distinguish between environmental economics and natural resource economics.

5 MARKS

- b) In economics, the environment is considered a complex asset that provides different services. Discuss four (4) services that are provided by the environment.

8 MARKS

- c) Distinguish between the following types of resources and give two examples of each resource type:

- i. Production resources and Non-production resources **4 MARKS**
- ii. Renewable resources and Non-renewable resources **4 MARKS**
- iii. Recyclable resources and Non-recyclable resources **4 MARKS**

Question 2

- a) Define property rights and discuss different types of property rights.

10 MARKS

- b) Stated preference and revealed preference techniques are some techniques that can be used to measure the value of non-market goods. Distinguish between the two techniques and describe briefly the methods under each technique.

15 MARKS**Question 3**

- a) What is a free-rider? Discuss the free-rider problem and how can the free-rider problem be solved?

10 MARKS

- b) The presence of externalities causes market failure. Discuss with a help of a figure why an unregulated market with a negative externality (pollution) leads to an inefficient outcome (inefficiency with an external cost).

15 MARKS**Question 4**

The relationship between the environment and the economy can be portrayed by means of the Material Balance Model. Can you **show and discuss** the relationship between the environment and the economy using the Material Balance Model?

25 MARKS