



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2023/2024

TVET EXAMINATION FOR THE DEGREE OF BACHELOR OF FOOD AND BEVERAGE

### SCH 2150: INTRODUCTION TO ENVIRONMENTAL ECONOMICS

DATE: APRIL 2024

TIME: 2 HOURS

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#### INSTRUCTIONS:

1. This paper has two sections A and B
  2. You are provided with a separate answer booklet.
  3. Marks for each question are as indicated.
  4. Do not write on the question paper.
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#### QUESTION ONE (40 MARKS)

##### SECTION A

1. Define;
  - a) Economics (2 Marks)
  - b) Environmental economics (2 Marks)
2. Explain the difference between positive and normative economics as key components of economic methodology (4 Marks)
3. Describe **four** key aspects of resource economics (4 Marks)
4. Resource allocation is the process of identifying all the available resources—whether labor or monetary—for a project and then strategically assigning them to tasks that enable them work effectively. List **four** company assets which counts as resources (4 Marks)
5. List **four** ecosystem services that can be sourced from Payment for Ecosystem Services (PES) programs (4 Marks)
6. Discuss the concept of;



- a) Opportunity costs (2 Marks)
- b) Scarcity (2 Marks)
- 7. Enumerate **four** objectives of demand analysis (4 Marks)
- 8. Highlight **four** steps in the cost-benefit analysis process (4 Marks)
- 9. State **two** ways in which economists measure externalities (4 Marks)
- 10. Highlight **four** importances of studying environmental economics (4 Marks)

## QUESTION TWO (60 Marks)

### SECTION B

Answer any **three** questions in this section

11. Natural resources are derived from the environment. Many of them are essential for our survival while others are used for satisfying our wants. Discuss the classification of natural resources on the basis of;
- a) Renewability (4 Marks)
  - b) Origin (4 Marks)
  - c) Utility (4 Marks)
  - d) Ownership (4 Marks)
  - e) Development (4 Marks)
12. Payments for ecosystem services (PES) occur when the beneficiaries or users of an ecosystem service make payments to the providers of that service.
- a) Outline **six** key principles of a Payments for ecosystem services (PES) scheme (12 Marks)
  - b) Describe **four** scales of Payments for ecosystem services (PES) scheme (8 Marks)
13. The demand and supply analyses are critical for the economy as well as for businesses and the general markets.
- a) Analyze the demand analysis process (10 Marks)
  - b) Explain;
    - i. The meaning of supply analysis (2 Marks)

ii. Factors determining the supply of a goods/services (8 Marks)

14. Externalities in environmental economics can stem from either the production or consumption of a good or service.

a) Define an externality (2 Marks)

b) Analyze **four** types of externalities (12 Marks)

c) Discuss **three** effects of externalities on the economy (6 Marks)