



MERU UNIVERSITY OF SCIENCE & TECHNOLOGY

Qualification: **Diploma In Environmental Science & Technology Level 6**

Unit of Competency: **Introduction to Environmental Economics**

Unit Code: **SEG 2150**

April 2024

END OF SEMESTER WRITTEN ASSESSMENT

Time: 3 Hours

INSTRUCTION TO CANDIDATES

1. This paper has two sections **A** and **B**
2. You are provided with separate Answer Booklet
3. Marks for each question are as indicated
4. **Do Not Write** on the Question Paper

This paper consists of 3 printed pages

Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing

SECTION A [40 Marks]

Answer **all** questions in this section

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)

SECTION B (60 Marks)

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)

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🌀ALL THE BEST🌀