MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2013/2014

FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCE

(CITY CAMPUS)

NES 829: ECONOMIC ANALYSIS FOR ENVIRONMENTAL DECISION MAKING

Date: 9th April, 2014   Time: 2.00 - 5.00 p.m.

INSTRUCTIONS:

- Answer ANY FOUR questions.

NES 829: ECONOMIC ANALYSIS FOR ENVIRONMENTAL DECISION MAKING

DATE: TIME: 3 HOURS

INSTRUCTIONS:

Answer any **FOUR** questions.

1. Economists have established that use of economic valuation only gives rough estimates but does not give perfect values when used in environmental valuation. Analyze the limitations of economic environmental valuation.

   [15 mks]

2. a)   Explain comprehensively how an optimal pollution tax operates pointing out the incentives to the producer.   [8 mks]

   b)   Represent graphically the information in (a) above.

   [7 mks]

3. The environmental science students of Kisumu Campus collected research data on housing prices at Lolwe estate. After analysis they noted that everybody in the sample had the same tastes and preferences, had exactly the

same income, went to the same school and likes the same music. When they finally attempted to construct a Willingness to Pay consumption function from the estate, it failed.   Analyze the causes of their failure.

[15 mks]

4. Elucidate the features of a Pareto optimal property rights marketing system.

[15 mks]

5. Write short notes on:
   a) The law of diminishing returns   [5 mks]

   b) The laws of thermodynamics   [5 mks]

   c) Represent diagrammatically the economic system and the environment

[5 mks]

6. To impute values for a zero priced environmental good, Isaac who is an environmental economist made a decision to use the Benefit Transfer Method but on sharing this with his colleague, Emily was against the idea arguing that it was not appropriate.

   a) What are the reasons behind Emily's expression of unwillingness to support use of the method?   [9 mks]

   b) What are the reasons for Isaac's preference for the method   [6 mks]