MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCES (HOMABAY CAMPUS)

NES 829: ECONOMIC ANALYSIS FOR ENVIRONMENTAL DECISION MAKING

Date: 20th April, 2012   *Time: 9.00 – 12.00 noon*

NES 829: ECONOMIC ANALYSIS FOR ENVIRONMENTAL DECISION MAKING

TIME: 3 HOURS

INSTRUCTIONS:

Answer any **FOUR** questions

1. Analyze the characteristics of property rights to resources that can lead to Pareto optimality. (15 mks)

2. Free markets cannot be relied upon to take care of the environment, they fail and the government has to intervene.

   a) Explain how the government intervenes to save the environment. (8 mks)

   b) Explain why even though the government intervenes it fails. (7 mks)

3. The Environmental Economics students of Homa-Bay Campus conducted economic valuation on market housing prices of some of the estates in Homa-Bay town. After analyzing data, they noted that everyone in the sample had exactly the same income, likes the same music, went to the same school, drove the same model of car, had the same tastes and preferences, etc. Finally, when they attempted to construct a Willingness To Pay (WTP) function, they failed.

   Analyze the causes of this failure. (15 mks)

4. The environment is the source of all resources used in the process of production.

   Explain the factors that:

   a) Affect demand for resources. (8 mks)

   b) Determine supply of resources (7 mks)

5. Suppose Jomo Kenyatta Sports Ground in Kisumu City has become an eye sore because of accumulation of solid waste. Two environmental economists, Tom and Seline decided to act to save the resource. Tom suggested that they can apply the Benefit Transfer Method of economic valuation, while Seline argued that the method will not solve the problem appropriately.

   a) Why did Tom express preference for the method? (6 mks)

   b) Why was Seline unwilling to use the method? (9 mks)

6. Using the Travel Cost Method to place values on the Arboretum in Nairobi as variedly done by the residents of Nairobi:

   a) Tabulate the hypothetical responses. (6mks)

   b) Calculate total consumer surplus. (3mks)

   c) Calculate the actual price paid. (3 mks)

   d) Draw a demand curve from the results of (a) above. (3 mks