EASTERN UNIVERSITY, SRI LANKA
FINAL YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE- 2015
EC: 4105 RESOURCE AND ENVIRONMENTAL ECONOMICS
EXTERNAL DEGREE

Answer All questions
Time: 2 Hours

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1. a. Briefly illustrate and explain the Negative Production Externality.

   b. Suppose that a wood pulp mill is situated on a bank of the River A. The private marginal cost (MC) of producing wood pulp (in Rs per ton) is given by the function MC = 1000 + 0.5Y. Where Y is tons of wood pulp produced. In addition to this private marginal cost, an external cost is incurred. Each ton of wood pulp produces pollutant flows into the river which cause damage valued at Rs.1000 which is an external cost, as it is borne by the wider community but not by the polluting firm itself. The marginal benefit (MB) to society of each ton of produced pulp is given by MB = 3000 - 0.5Y.

   i. Using a diagram illustrate the relationships among Marginal Cost (MC), Marginal Benefit (MB), and Marginal Social Cost (MSC) functions.

   ii. Find the profit-maximizing output of wood pulp for the pulp mill.

   iii. Find the wood pulp output which maximizes Social Net Benefits.

2. a. Graphically illustrate the "Schaefer Model" of fisheries.

   b. Discuss the term "Static Efficient Sustainable Yield" in fisheries.

3. a. What are "Property Rights" and briefly explain the different characteristics of property rights.

b. Identify whether each of the following resource categories is a public good, a common pool resource or neither with justifications.

i. The number of whales in an ocean to whale hunters.

ii. A lighthouse in the sea to the public.

iii. Water from a town well for the residents.

iv. Bottled water.

4. a. What are Resources and how will you differentiate it from a Non- resource?

b. Using an example explain the term "Flow Resources".

c. Graphically explain the biological dimension of a forest tree growth.
