

EASTERN UNIVERSITY, SRI LANKA

FINAL YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE- 2015

EC: 4105 RESOURCE AND ENVIRONMENTAL ECONOMICS

Answer All questions

Time: 2 Hours

1. a. What are the different types of Values in Environmental Valuation and give brief explanation on each of them.

b. Briefly describe the different types of Indirect Revealed Preference methods in Environmental Valuation.

(30 Marks)

2. a. Explain the concept of "Economically Optimal Level of pollution".

b. Two firms can control emissions at the following marginal costs: $MC_1 = \text{Rs. } 200q_1$, $MC_2 = \text{Rs. } 100q_2$, where q_1 and q_2 are, respectively, the amount of emissions reduced by the first and second firms. Assume that with no control at all, each firm would be emitting 20 units of emissions or a total of 40 units for both firms. Calculate the cost-effective allocation of control between the two firms if a total reduction of 21 units of emissions is necessary.

(20 Marks)

3. a. Graphically illustrate the efficient provision of Public Goods.

b. Suppose the government is trying to decide how many miles of a very scenic river it should preserve. There are 100 people in the community, each of whom has an identical inverse demand function given by $P = 10 - 1.0q$, where q is the number of miles preserved and P is the per-mile price he or she is willing to pay for q miles of preserved river. If the marginal cost of preservation is Rs. 500 per mile, how many miles would be preserved in an efficient allocation?

(20 Marks)