

EASTERN UNIVERSITY, SRI LANKA.

FIRST YEAR SECOND SEMESTER EXAMINATION IN AGRICULTURE 2012

EC: 1201 NATURAL RESOURCE ECONOMICS

Answer ALL questions

Time allowed: 2 Hours

1. a. Graphically illustrate the "Schaefer Model" of Fisheries.
- b. Discuss with suitable diagrams how an efficient level of effort in fishing, be achieved.
- c. The table below shows the number of boats operating in a coastal fishery, revenues and costs. Find out the Total Net Revenue, Marginal Revenue and Revenue per boat and fill the table below.

Number of boats (Q in hundreds)	1	2	3	4	5	6	7	8	9	10	11	12	13
Total value of catch (in million Rupees)	1.0	2.0	3.0	4.0	4.8	5.4	5.8	6.0	6.0	5.8	5.4	4.8	4.0
Total Costs (in million rupees)	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8	5.2
Total Net Revenue (in million rupees)	---	---	---	---	---	---	---	---	---	---	---	---	---
Marginal Revenue (in thousand rupees)	---	---	---	---	---	---	---	---	---	---	---	---	---
Revenue per boat (in thousand rupees)	---	---	---	---	---	---	---	---	---	---	---	---	---



2. a. What are Property Rights and briefly describe the different characteristics of property rights.  
  
b. Let  $MNPB = 1000 - 10Q$  and  $MEC = 10Q$ ,  
Suppose for every unit of output produced, one pollution unit will be generated, Identify the optimal level of output and optimal level of pollution in terms of damage/ External Cost.
  
  3. a. What do you understand by the term Externalities and briefly describe the different types of externalities.  
  
b. Explain the different ways to achieve an efficient level of production in the presence of externalities.
  
  4. Write Short Notes on the following.
    - a. Tragedy of Commons
    - b. Economics of forest harvesting
    - c. Public Goods
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