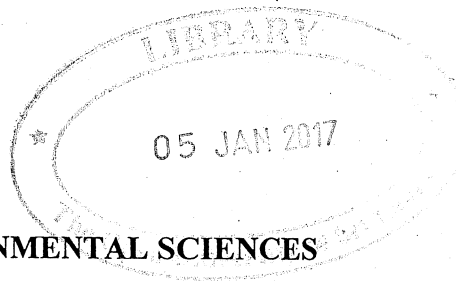


THE OPEN UNIVERSITY OF SRI LANKA
POST GRADUATE DIPLOMA IN ENVIRONMENTAL SCIENCES
LEVEL 7 – 2015/ 2106
NEP 1208– ENVIRONMENTAL ECONOMICS AND MANAGEMENT
OPEN BOOK TEST (OBT)



DURATION – ONE AND HALF HOURS (1 ½ HOURS)

Date: 05. 03. 2016

Time: 1.00 p.m. – 2.30 p.m.

Answer three questions.

1. (a) Explain the concept 'Scarcity'.
(b) Describe the concept 'opportunity cost' using an example.
2. Differentiate the materials balance model from the circular flow model.
3. "The supply for a good or service is influenced by many factors. However, a change in quantity supply occurs on account of one of them" Explain graphically.
4. Draw hypothetical supply and demand curves for tea. Show how the equilibrium price and quantity will be affected by each of the following occurrences. Draw a different diagram for each answer.
 - (i) Bad weather wreaks havoc with the tea crop.
 - (ii) A medical report implying coffee is good for your health.
 - (iii) A technological innovation drops the cost of producing tea.
 - (iv) Consumers' income falls.
5. "Externalities are the effects of an action on other parties which were not taken into account by the perpetrator". Explain .

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Part two

Answer three (03) questions only

1. Explain the following equations with a suitable diagram for each
 - i. $\text{Externality} = \text{Social Cost} - \text{Private Cost}$
 - ii. $\text{Social marginal cost} = \text{Private marginal cost} + \text{Marginal Damage}$

2. Discuss your reaction to the following statement: "Solving the problems of environmental economics is simple. It is just a matter of internalizing the externalities."
 - i. Does the theory of externalities apply to most or all environmental issues?
 - ii. What are some practical problems involved in internalizing externalities?

3. Explain that how
 - i. buyers' willingness to pay, consumer surplus, and the demand curve are related.
 - ii. sellers' costs, producer surplus, and the supply curve are related.

4.
 - i. Define the Travel Cost Method (TCM)
 - ii. Differentiate the 'Individual Travel Cost Method' (ITCM) from The 'Zonal Travel Cost Method' (ZTCM)
 - iii. Examine the limitations of the Travel Cost Method (TCM)

5.
 - i. Define the Hedonic Price Method (HPM)?
 - ii. What are the assumptions used in the application of the Hedonic Price Method (HPM)?
 - iii. What types of environmental goods and services can be valued by applying the Hedonic Price Method (HPM)? Give examples to explain.

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PART - II

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Instructions:

➤ Answer three (03) questions only

1. How to carry out a contingent Valuation Survey?
2. Briefly explain the various steps in Cost Benefit Analysis (CBA) using an example.
3. Why are Pigovian taxes preferred to regulatory policies as methods to remedy negative externalities?
4. Use a graph to illustrate the quantity of pollution that would be emitted (a) after a corrective tax has been imposed and (b) after tradable pollution permits have been imposed. Could these two quantities ever be equivalent?
5. Answer two (02) of the following concepts
 - i. Deposit/refund system and Pollution permit trading systems
 - ii. Pollution charge and Subsidy
 - iii. Net Present Value, Benefit Cost Rate, and Internal Rate of Return
 - iv. Cost effectiveness of the command and control approach

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