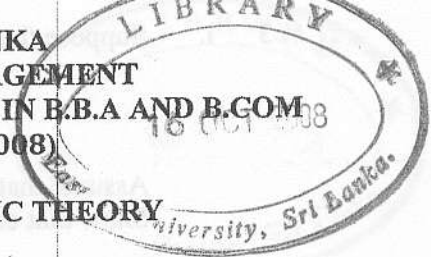


EASTERN UNIVERSITY, SRI LANKA  
FACULTY OF COMMERCE AND MANAGEMENT  
SECOND YEAR FIRST SEMESTER EXAMINATION IN B.B.A AND B.COM  
2007/08 (proper and Repeat- July 2008)



ECN 2114 ADVANCED MICRO ECONOMIC THEORY

Answer all Questions

Time: 3 hours

1. i. Distinguish between Total Utility and Marginal Utility

(4 Marks)

ii. You are given the following utility function

$$U = 4 X^2 Y^2$$

The price of X = Rs 4/= , Y= Rs 4/= and the consumer income is Rs 200/=  
Using these information find out the following

- a). The optimum combination of X,Y
- b). A demand curve for commodity X

(8 Marks)

iii. Explain the Hicksian and Slutsky approaches to determine the substitution and income effects. Drive the demand curves for both approaches.

(8 Marks)

2. i. Distinguish between consumer surplus and producer surplus

(6 Marks)

ii. Demand and supply functions for a commodity is given by the following equations

$$D(x) = (X - 5)^2$$

$$S(x) = X^2 + X + 3$$

Find the consumer surplus and producer surplus when X = 3

(7 Marks)

iii. Find out the consumer surplus and producer surplus at the equilibrium point

(7 Marks)

- 3 i. Suppose that a firm's production function is given by

$$Q = K^\alpha L^\beta \text{ where } \alpha, \beta > 0$$

Assume that  $P_L = w$  and  $P_K = r$

Show that cost minimization requires

$$\frac{r \cdot K}{\alpha} = \frac{w \cdot L}{\beta}$$

(10 Marks)

- ii. Production function of a manufacturing firm is given by the following function

$$Q = 8L^{1/2} + 20K^{1/2}$$

Assume that  $P_L = 1\$$  and  $P_K = 5\$$

Find the following

- Expansion path
- Input supply functions

(10 Marks)

4. i. Explain in detail what is meant by each of the basic assumption of the perfect competitive Market structure

(5 Marks)

- ii. Consider a profit maximizing competitive firm producing two product  $Q_1$  and  $Q_2$  which are sold at  $P_1 = 12$  and  $P_2 = 18$  thus the firm's total revenue is

$$TR = 12 Q_1 + 18 Q_2$$

Assume that the firm's total cost function is

$$TC = 2Q_1 + Q_1 Q_2 + Q_2^2$$

Find the profit maximizing level of output of two products.

(10 Marks)

- iii. What are the factors shape the competitive environment in the market structures?

(5 Marks)

5. Briefly explain the following

- Marginal rate of technical substitution
- Return to scale
- Monopolistic Competition
- Production elasticity

(20 Marks)