

**Eastern University, Sri Lanka**  
**Faculty of Commerce and Management**  
**Second Year first Semester Examination in BBA /B.Com 2008/09**  
**(April/ May 2010) (Proper and Repeat)**



**ECN 2114 – Advanced Micro Economics**

**Answer all Questions**

**Time: Three Hours**

1. i. Distinguish between Total Utility and Marginal Utility. ( 5 Marks)
- ii. Graphically explain the conditions for Consumer Equilibrium (5 Marks)
- iii. You are given the following Utility Function  
$$U = \frac{1}{2} XY$$
  
U = Utility  
X, Y = Commodities  
The price of the commodity X is  $P_x$  and the price of the commodity Y is  $P_y$   
Consumer income is M  
Derive the demand for commodity X and Y (10 Marks)
2. i. Explain the Long- run Production Process of a firm ( 6 Marks)
- ii. Consider the following production function  
$$Q = K^{1/3} L^{1/3}$$
  
Calculate the Marginal Rate of Technical Substitution (8 Marks)
- iii. Determine whether the following production function exhibits Increasing, constant and Decreasing returns to scale  
a.  $Q = 0.4X + 0.5Y$   
b.  $Q = 1.5X^{0.7} Y^{4.5}$  ( 6 Marks)
3. i. Explain the basic assumptions of a perfect competition. (8 Marks)
- ii. Derive mathematically the basic conditions for the profit maximization in perfect competition. (4 Marks)
- iii. A perfect competitive firm faces the following cost function  
$$TC = Q^3 - 7Q^2 + 12Q + 5$$
  
The average revenue is Rs 4 /=  
Calculate the total profit of the firm. (8 Marks)

4. i. In Long-run equilibrium, what will happen to price for a competitive firm if there is a rise in demand for the product of the market? (05 Marks)

ii. Consider the following inverse demand and total cost functions of a monopolist:

Demand function:  $P = 18 - \frac{1}{20}Q$

TC function:  $TC = 6Q + 0.05Q^2$

- Determine profit-maximizing price and output of the monopolist.
- How much profits he will earn?
- Calculate his total profit level.

(15 Marks)

5. Briefly explain the followings.

- Indifference curves
- Monopoly Power
- Consumer Surplus
- Oligopoly market

(20 Marks)