



FIRST EXAMINATIONS IN BACHILOR OF COMMERCE  
(EXTERNAL) – 2011/2012  
HELD IN APRIL / MAY 2013

BCOM 14 (I) – MICRO ECONOMICS

Answer all Questions

Duration: 03 hours

01. Using diagrams briefly explain the following

- (i) Isoquant curve
- (ii) Marginal rate of technical substitution
- (iii) Budget line
- (iv) Price consumption curve
- (v) Engel curve
- (vi) Factor price curve
- (vii) Expansion path
- (viii) Consumer's equilibrium using indifference curve
- (ix) Capital intensive technology
- (x) Short – run equilibrium of a firm in the perfectly competitive market.

(10 X 2 = 20 Marks)

02. (i) What is meant by "Utility maximization" ?

(03 Marks)

(ii) Distinguish the concepts of "Marginal Utility" and "Total utility"

(03 Marks)

(iii) Let a consumer's utility function be given by

$$Tu_{xy} = 200x^2 y^2$$

Where X and Y are quantities of two commodities

The consumer's budget constraint is,

$$I = P_x X + P_y Y$$

where  $P_x$  = Price of X,  $P_y$  = Price of Y and I = disposable income

- (a) Derive the demand function for the commodity X.

(04 Marks)

- (b) Using hypothetical levels of income, Prepare the income demand schedule for the commodity X.

(02 Marks)

- (c) What can you say about characteristic of the commodity X ?

(02 Marks)

- (d) Assuming the unit prices of X and Y are Rs. 100/- and Rs. 50/- respectively and the level of disposable income is Rs. 1500/-. Estimate the equilibrium purchase of the commodities X and Y

(03 Marks)

- (e) Suppose the consumer's income rises to Rs. 2000/- and Price of the commodity X decreases to 50% per unit. Keeping other things constant. Find out the new optimum combination of X and Y.

(03 Marks)

03. (A) (i) Briefly explain the Hicksian approach of income and substitution effects of the price change of a commodity.

(05 Marks)

- (ii) If a consumer's level of income (I) and the price of the commodities X and Y are given as follows

$$I = 2000/-$$

$$P_x = 100 /-$$

$$P_y = 100 /-$$



- (a) According to the **Revealed Preference Theory** determine the options of his consumption.

(03 Marks)

- (b) If the price of X declines to 80/-, what will be the fresh option of his consumption.

(03 Marks)

- (B) (i) what are the properties of an Isoquant curve ?

(02 Marks)

- (ii) Consider the following Cobb – Douglas production function.

$$Q = A L^{\beta_0} K^{\beta_1}$$

Drive the following.

- Average production of labour
- Marginal production of capital
- Elasticity of factors
- Marginal rate of technical substitution of factors
- Return to scale

(05 Marks)

- (iii) Graphically illustrate the optimum factor combination.

(02 Marks)

- 4 (i) The total cost (TC) function of a perfectly competitive market is given as follows,

$$TC = b_0 + b_1Q - b_2Q^2 + b_3Q^3$$

Where Q is the Quantity of output

Derive the functions of TFC, TVC, AFC, AVC, AC and MC

(05 Marks)

- (ii) "In the perfect competition the abnormal profit will not last in the long run" explain. (03 Marks)
- (iii) Prove that a firm's  $AR = MR = P$  in the perfectly competitive market. (03 Marks)
- (iv) What do you mean by "Price taker" under perfect competition? (03 Marks)
- (v) The total revenue (TR) and total cost (TC) functions of a firm in a perfectly Competitive market is given as follows,

$$TR = PQ$$

$$\text{Where } P = 200/-$$

$$Q = \text{Output}$$

$$TC = 1000 + 10Q - 0.9Q^2 + 0.04Q^3$$

- (a) Drive the optimum level of output of the firm. (03 Marks)
- (b) calculate total profit / lost of the firm. (03 Marks)

05.

- a) Clearly explain income compensated curve and capital compensated curve with using graph. (10 Marks)
- b) Clearly explain capital, total and substitution effect which are happening due to price changes of factor of production based on Isoquant curve, with using graph. (10 Marks)