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SCHOOL OF ACCOUNTING AND BUSINESS
BSc. (APPLIED ACCOUNTING) GENERAL / SPECIAL DEGREE
PROGRAMME

END SEMESTER EXAMINATION – JULY 2016

BEC 30325 Managerial Economics

Date : 07th August 2016
Time : 1.00 p.m.– 3.30 p.m.
Duration : Two and a half (02 ½) hours

Instructions to Candidates:

- This paper consists of three sections (A, B and C).
- Section A – Answer **ALL** questions in the sheet provided.
Section B – Answer only **Four (04)** questions
Section C – Answer only **One (01)** question
- The total marks for the paper is 100.
- The marks for each question are shown in brackets.
- Answers should be written neatly and legibly.

Section A

Question No. 01

Select the most appropriate answer.

1. A firm will maximize profit by producing that level of output at which
 - a. the additional revenue from the last unit sold exceeds the additional cost of the last unit by the largest amount.
 - b. the additional revenue from the last unit sold equals the additional cost of producing the last unit.
 - c. total revenue exceeds total cost by the largest amount.
 - d. total revenue equals total cost.
2. Marginal utility is
 - a. the utility obtained from the consumption of all the units of a good.
 - b. the relative value of two goods when a utility-maximizing decision has been made.
 - c. the change in utility that results from increasing the amount of a good consumed by one unit.
 - d. the change in the amount of a good consumed that increases total utility by one unit.
3. If the demand for umbrellas is price inelastic,
 - a. changes in price do not affect the number of umbrellas demanded.
 - b. if more umbrellas are sold as the result of a price decrease, total expenditures by consumers on umbrellas will decrease.
 - c. the percentage change in price is less than the percentage change in quantity demanded.
 - d. the percentage change in quantity demanded is greater than the percentage change in price.

4. The cross-price elasticity of demand between goods X and Y
 - a. measures the responsiveness of the quantity of X demanded to changes in the price of Y
 - b. is the percentage change in the price of Y divided by the percentage change in the quantity of X demanded.
 - c. is greater than zero if X and Y are substitutes.
 - d. all of the above .
5. When marginal revenue is positive,
 - a. demand is elastic.
 - b. marginal revenue is greater than price.
 - c. decreasing price will decrease total revenue.
 - d. both b and c
6. A short-run production function assumes that
 - a. the level of output is fixed.
 - b. at least one input is a fixed input.
 - c. all inputs are fixed inputs.
 - d. both a and b
7. If average product is increasing, then marginal product
 - a. must be greater than average product.
 - b. must be less than average product.
 - c. must be increasing.
 - d. cannot be decreasing.
8. The marginal product of labor
 - a. measures how output changes as the wage rate changes.
 - b. is less than the average product of labor when the average product of labor is decreasing.
 - c. is negative when adding another unit of labor decreases output.
 - d. both b and c

9. Diminishing returns to a factor refer to the decrease in
- a. profit that results from increases in output.
 - b. average total cost that results from decreases in input prices.
 - c. average product that results from increases in the variable input.
 - d. marginal product that results from increases in the variable input.
10. For a price-taking firm, marginal revenue
- a. is the addition to total revenue from producing one more unit of output.
 - b. decreases as the firm produces more output.
 - c. is equal to price at any level of output.
 - d. both *a* and *b*

(Total 20 marks)

Section B

Answer only **Four (04)** questions

Question No. 02

The following is the estimated demand function for product X of a firm.

$$Q_X = 5200 - 42P_X + 20P_Y + 52I + 0.20AD_X$$

(2002) (17.5) (6.2) (25) (0.09)

$$R^2 = 0.55 \quad F = 4.88$$

Critical Value at 5% significance level = 2.306

where, P_X is the price of the product, P_Y is the price of a competitor's product, I is the per capita income and AD_X is the advertising expenditure

Numbers in the parentheses are standard errors of the estimates

- i. Interpret the parameters in the estimated demand function

(06 marks)

- ii. If P_X is Rs. 600, P_Y is Rs.500, I is Rs. 5500 and AD_X is Rs.10,000 what would be the current demand of the product?

Calculate the elasticities of the variables.

(03 marks)

- iii. Do you think that this firm should reduce its price to increase its market share?

Explain your answer.

(03 marks)

- iv. What is your interpretation of R^2 value?

(03 marks)

(Total 15 marks)

Question No. 03

- i. An economist estimated the following cost function of a firm which produces product X.

$$C = 100 + 25Q_X - 30Q_X^2 + 5Q_X^3$$

Based on this information, determine:

- The fixed cost of producing 10 units of output.
- The variable cost of producing 10 units of output.
- The total cost of producing 10 units of output.
- The average fixed cost of producing 10 units of output.
- The average variable cost of producing 10 units of output.
- The average total cost of producing 10 units of output.
- The marginal cost when $Q=10$

(07 marks)

- ii. Complete the table below to find the fixed cost, variable cost, total cost, average fixed cost, average variable cost, and marginal cost at all relevant levels of output.

Q	TFC	TVC	TC	AFC	AVC	ATC	MC
0	10,000					-	
100		10000				200	
200							50
300			40000				
400					125		
500				20		200	
600		140000				250	

(08 marks)

(Total 15 marks)

Question No. 04

i. Explain the equilibrium in production with the help of iso-quant and iso-cost curves
(07 marks)

ii. Drawing diagrams where necessary, write short notes on:

- a. Law of diminishing marginal returns.
- b. Cobb-Douglas production function.
- c. Economies of scale.
- d. Expansion path.

(08 marks)

(Total 15 marks)

Question No. 05

i. “Firms in perfect competition are said to be price takers.”

Do you agree with this statement? Explain your answer.

(03 marks)

ii. Graphically explain the long-run competitive equilibrium of a firm in perfect competition.

(04 marks)

iii. “The long-run market supply curve in perfect competition can be either perfectly elastic or upward sloping.” Explain the reason using graphs.

(04 marks)

iv. What is meant by ‘Economic rent’? How does it affect the long-run economic profit of a firm in a competitive market? Explain.

(04 marks)

(Total 15 marks)

Question No. 06

- i. Explain the entry barriers in monopoly.

(05 marks)

- ii. How does a monopolistic firm manage to earn economic profit in the long-run? Explain.

(03 marks)

- iii. Firm S is the only producer of a particular type of aluminum bars used in the construction of commercial buildings. The demand equation for the product is;

$$Q = 15,000 - 10P$$

where; Q is the annual sales quantity in tons and P is the price per ton. The firm's total cost function (in rupees) is;

$$C = 1,400,000 + 300Q + 0.05Q^2$$

- a. To maximize profit, how many tons of aluminum bars should firm S plan to produce and sell? What price should it charge?

(04 marks)

- b. Compute the firm's total profit.

(03 marks)

(Total 15 marks)

Section C

Answer **One (01)** question

Question No. 07

- i. How does managerial economics help the manager in decision making and forward planning?

(10 Marks)

- ii. What is elasticity of demand? What are the managerial uses of elasticity of demand?

(05 Marks)

- iii. What are the factors influencing elasticity of demand?

(05 Marks)

(Total 20 marks)

Question No. 08

- i. a. Why do the managers of business firms pay very much attention to the market structures in which they are in operation?

(05 Marks)

- b. "Perfect competition is better than the monopoly when it comes to the welfare of the society". If you are a manager of a monopolistic firm, what arguments would you raise against this statement?

(05 Marks)

- ii. "A firm should continue to hire labor as long as marginal revenue product of labor is greater than the marginal resource cost of labor ($MRP_L > MRC_L$)"

Do you agree with this statement? Elaborate your answer. Use a graph if possible.

(05 Marks)

- iii. What is meant by returns to scale? How do you explain returns to scale with the help of Cobb Douglas production function?

(05 Marks)

(Total 20 marks)