THE INSTITUTE OF CHARTERED ACCOUNTANTS OF SRI LANKA

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

YEAR I SEMESTER I – INTAKE VII (GROUP A)
END SEMESTER EXAMINATION – JANUARY 2017

BEC 10125 Microeconomics

Date	:	6th February 2017
Time	:	9.00 a.m. - 11.30 a.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** the questions in the sheet provided.
  Section B – Answer **three (03)** questions out of the four (04) questions given.
  Section C – Answer **one (01)** question out of the two (02) questions given.
- 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

Answer **ALL** questions in this section

Question No. 01

Select the most appropriate answer.

1. A production possibility frontier shows:

   a. The minimum combinations of products that a country can produce with its current resource endowment and current technology

   b. The maximum combinations of products that a country can produce with its current resource endowment and current technology

   c. The maximum products that a country can produce with current resources and any past or future technology.

   d. The point at which a country currently produces

   e. The point at which a country would like to produce

2. A high-definition flat screen TV sold 500,000 units at Rs 1000 each last year. It is known that its price elasticity of demand is -2.0 (calculated at the current price and quantity). What would be the number of units sold this year, if there are no other changes affecting demand and the price per unit is lowered to Rs 950?

   a. 450,000

   b. 525,000

   c. 537,500

   d. 550,000

   e. 600,000

3. Select the **incorrect** statement in relation to indifference curves.
   a. Indifference curves plot combinations of baskets of goods between which a consumer has the same level of total utility.
   b. Indifference curves are generally negatively sloped if the goods involved are genuinely "goods" but they could be positively sloped if one of the products involved is a "bad".
   c. Without utility being quantifiable we can say that one indifference curve is higher than (or preferred to) another but we cannot say by how much.
   d. Two indifference curves cannot intersect unless they are identical throughout.
   e. Two different indifference curves can intersect but only once**.**

4. Which of the following correctly defines the term 'production function'?
   a. It shows how the value of output is determined by the costs of inputs.
   b. It shows how much production is needed in order to make a profit.
   c. It shows a firm how many workers it should hire.
   d. It shows how quantities of output per period are related to alternative possible quantities of inputs used per period.
   e. It shows how the average cost of production varies with output.

5. A firm can sell its product for Rs 40 each in a perfectly competitive output market. Its total cost of production for the production range of 100 units to 105 units is given below:

No of Units	100	101	102	103	104	105
Total Cost (in Rs)	3600	3625	3660	3700	3742	3790

   What is the profit maximizing level of production?
   a. 101 units
   b. 102 units
   c. 103 units
   d. 104 units
   e. 105 units

6. A profit maximizing monopolist will:
   a. Choose the output at which price equal to marginal cost.
   b. Choose the output at which price equal to average cost.
   c. Choose the output for which marginal cost equals marginal revenue and set a price above marginal cost.
   d. Choose the output range where marginal revenue is negative.
   e. Choose the output where average cost is at a minimum.

7. Which of the following statements provides an accurate definition of oligopoly?
   a. A market structure in which there are a few large firms competing strategically with each other.
   b. A market structure in which large oil producers sell their products in corporation.
   c. A market structure in which there are few large interdependent firms but all are price takers.
   d. A market structure in which one large firm dominates and the other firms follow the dominant firm.
   e. A market structure in which there is patent protection.

8. In monopolistic competition, which one of the following is true?
   a. The outcome is the same as in perfect competition in the short run and the same as pure monopoly in the long run.
   b. Each producer faces a downward sloping demand curve, sets marginal cost equal to marginal revenue and makes no profit in the long run.
   c. Each producer sets marginal cost equal to price in both the short run and the long run.
   d. Each producer sets marginal cost equal to price in the long run but not in the short run.
   e. Each firm in the long run produces where average cost is at a minimum.

9. Economies of scale are indicated by;
   a. The rising segment of the long-run marginal cost curve
   b. The rising segment of the short-run average total cost curve.
   c. The rising segment of the long-run average total cost curve.
   d. The declining segment of the short-run average total cost curve
   e. The declining segment of the long-run average total cost curve.

10. In using a prisoners' dilemma game to model the behaviour of firms within an oligopoly, it is assumed that;

a. Each firm seeks to act in its own best interest.
b. Each firm seeks to act in the best interest of the industry as a whole.
c. All firms will implement the same strategy.
d. Each firm will implement a different strategy.
e. There is a tendency for at least one firm to cheat.

(Total 20 marks)

SECTION B

Answer **only Three (03)** questions from this section

Question No. 02

1. Distinguish between 'Positive Economic Statements' and 'Normative Economic Statements' using examples.

(02 marks)

2. Explain the difference between 'price elasticity of demand' and 'income elasticity of demand'.

(03 marks)

3. Explain the concept of 'diminishing marginal utility' using a diagram.

(04 marks)

4. The demand and supply functions of a product is given as follows;

$Qd = 150 - 5\ Px$

$Qs = 10\ Px$

Calculate;

a. The consumer surplus at equilibrium.
b. The excess demand or excess supply if the market price is set at Rs 20/=.

(05 marks)

5. Briefly explain three (03) properties of indifference curves using suitable diagrams.

(06 marks)

(Total 20 marks)

Question No 03

1. Distinguish between ‘sunk cost’ and ‘incremental cost’.

(02 marks)

2. A firm's total cost function is given by the equation:

$$TC = 10 + 10Q - 4Q^2 + Q^3$$

Identify an expression for each of the following cost concepts:

a. Average Total Cost

b. Marginal Cost

(03 marks)

3. The production function of a firm is as given as follows;

$$Q = 10L^{1/2}K^{1/2}$$

Calculate the slope of the isoquant when the firm is producing efficiently with 10 labourers and 05 units of capital.

(04 marks)

4. The minimum point of average total cost (ATC) curve occurs at a higher output than the minimum point of average variable cost (AVC) curve.

Explain the rationale behind this statement and indicate the relationship between curves using a diagram.

(05 marks)

5. Illustrate the three (03) types of returns of scale that is experienced by a firm in the long run.

(06 marks)

(Total 20 marks)

Question No 04

1. Explain why advertising is important for a monopolistically competitive firm rather than a perfectly competitive firm or a monopolist.

(04 marks)

2. 'The profit maximization is always given at the point where marginal revenue equals marginal cost (MR = MC)'.

   Do you agree with this statement? Justify your answer with the help of a diagram.

(05 marks)

3.
   a. Define the term 'Price Discrimination'.
   b. Explain why a perfectly competitive firm cannot implement price discrimination.

(05 marks)

4. 'A perfectly competitive firm achieves economic efficiency in the long run'.

   Explain this statement with a diagram.

(06 marks)

(Total 20 marks)

Question No 05

1. Distinguish between 'dominant strategy' and 'dominated strategy'.

(02 marks)

2. The market shares of the firms in telecommunication industry are given as follows;

Firm	**Market Share (as a %)**
Firm A	05
Firm B	25
Firm C	35
Firm D	20
Firm E	15

   Calculate;

   a. The three firm concentration ratio
   b. The three firm Herfindahl index

(03 marks)

3. Briefly explain the following terms in relation to oligopoly market structures;
   a. Mutual interdependence
   b. Implicit price collusion

(04 marks)

4. Using the kinked demand curve model explain why oligopoly market structures experience sticky prices.

(05 marks)

5. Alpha and Beta, two oligopoly firms have to decide on their promotional strategy. The following payoff table shows their annual payoffs in terms of profits from the decisions they make.

		Beta's price	
		High	*Low*
Alpha's price	**High**	**50** 70	**40** 45
	Low	**45** 55	**60** 60

   a. Identify the likely outcome of this promotional decision problem.

(02 marks)

   b. Analyse whether the answer to 5 (a) above will differ if Beta becomes the first mover in making the decision.
   (Hint: Use a game tree to explain your answer).

(04 marks)

(Total 20 marks)

SECTION C

Answer **only one (01)** question from this section

Question No. 06

1. ‘All Giffen goods are inferior goods but all inferior goods are not Giffen goods.’

   Explain this statement showing graphically the difference between the substitution and the income effects of a price change on the demand for the above two types of goods.

   (10 marks)

2. ‘A rational producer will always operate in the stage of diminishing returns instead of increasing returns in the short run’.

   Explain this statement by highlighting the features of the three stages of law of diminishing returns.

   (10 marks)

(Total 20 marks)

Question No. 07

Discuss how the market structure of a particular industry influences its price and output decisions using suitable examples.

(Total 20 marks)