	UNIVERSITY OF RUHUNA **FACULTY OF MANAGEMENT AND FINANCE**	No. of Pages : 04 No. of Questions : 05 Total Marks :70
BACHELOR OF BUSINESS ADMINISTRATION HONOURS DEGREE 1000 LEVEL FIRST SEMESTER END EXAMINATION – AUG/SEP 2023		*Three Hours*

BBA 11033 Microeconomics Academic Year 2022/2023

Instructions

- This paper contains five (05) questions
- Answer all five (05) questions
- Calculators are permitted

Question 01

(A) RM Corporation is a business which produces shoes. They have estimated their production function as follows:

$$Q = 1.5LK - 0.25L^2 - 0.35K^2$$

They incur Rs. 50 as labor cost and capital cost is Rs. 65. RM Corporation aims to maximize their output of shoe production subject to the cost constraint of Rs.2,000

(i) Calculate the amounts of labor and capital that should be used by RM Corporation.

(06 Marks)

(ii) Determine the total output from the above calculated combination of labor and capital.

(02 Marks)

(B) Briefly explain the relationship between productivity curves and cost curves using necessary graphical illustrations.

(03 Marks)

(C) List out three (03) uses of learning about the production functions.

(03 Marks)
(Total Marks 14)

Question 02

(A) "Indifference curves are always downward sloping".

Do you agree with this statement? Justify your answer using necessary graphical illustrations and suitable examples.

(04 Marks)

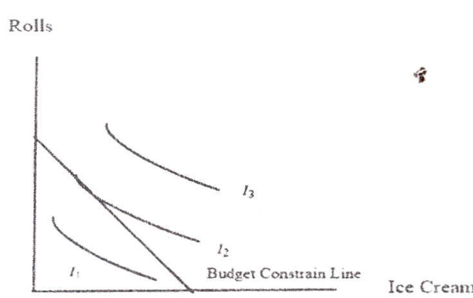
(B) Nuwani has a total income of Rs. 2,000 which she is planning to spend on buying a bundle of two products. The two products are rolls and ice cream. The price of a roll is Rs. 50 and price of an ice cream is Rs.100.

Draw the budget constrain line by plotting ice cream on the horizontal axis and rolls on the vertical axis. The graphical illustration should showcase the below points respectively.
You are required to show relevant calculations on the answer script.

(i) If Nuwani spent her entire budget of Rs. 2,000 on buying rolls, quantity of rolls she could buy.
(ii) If Nuwani spent her entire budget of Rs. 2,000 on buying ice cream, quantity of ice cream she could buy.
(iii) If Nuwani decides to spend the entire budget of Rs. 2,000 as Rs. 1,500 on rolls and Rs.500 on ice cream, how much of quantities will be included in the product bundle?

(04 Marks)

(C) Consider if Nuwani has few combinations of rolls and ice cream in three different indifference curves located in an indifference map along with the budget constraint line as following. State the optimum choice of Nuwani out of indifference curves I_1, I_2, I_3. Justify your selection of the optimum choice.



(02 Marks)

(D) Because of an additional income received, Nuwani's budget has increased up to Rs. 3,000. Showcase the following changes (i and ii) in a graphical illustration taking into consideration the prices of rolls and ice cream remained constant. (Rolls – Rs. 50 & Ice cream – Rs.100)

(i) The impact of income change on the budget constraint line.
(ii) The impact of income change on the quantities of rolls and ice cream that can be purchased (Assume the income split is Rs.2,000 spent on rolls and Rs.1,000 spent on ice cream)
(iii) State the impact of income change on the optimum choice and the indifference curve that provides the maximum satisfaction.
[Assume previous indifference curves and the budget constraint are showcased in sub question (C)]

(04 Marks)
(Total Marks 14)

Question 03

(A) A perfectly competitive industry comprises of 1,000 identical firms. The market demand (Q_D) and market supply (Q_S) functions are as follows.

$$Q_D = 6,000 - 10P$$

$$Q_S = 2,000 + 30P$$

The total cost function is provided by $TC = 200 + 20Q + 2Q^2$.

Required;

Calculate the market equilibrium price and profit maximizing quantity of a perfectly competitive firm in this market.

(04 Marks)

(B) "The above arrived equilibrium price for the industry is the price considered by firms in this perfectly competitive market as well".

Do you agree with this statement? Justify your answer using necessary graphical illustrations if any.

(03 Marks)

(C) A perfectly competitive firm is having a total cost determined by the following equation.

$$TC = 250 + 50Q - 10Q^2 + Q^3$$

Required;

Determine the price in which this firm will shut down it's operations.

(04 Marks)

(D) "Perfectly Competitive Market and Monopoly both achieve Productive Efficiency in the long run".

Do you agree with this statement? Justify your answer using necessary graphical illustrations if any.

(03 Marks)
(Total Marks 14)

Question 04

(A) A Monopoly market demand is determined by the following demand curve.

$$Q = 700 - 2P$$

The total cost function is given by $TC = 200 + 50Q + 2Q^2$.

Required;

Calculate the profit maximizing quantity and price for this monopoly market.

(04 Marks)

(B) Considering the answers derived in part (A) draw a graphical illustration and mark the following items.

a) Demand Curve
b) Marginal Revenue Curve
c) Marginal Cost Curve
d) Profit Maximizing Quantity & Price
e) Consumer Surplus
f) Producer Surplus
g) Deadweight Loss

(03 Marks)

(C) Determine the values of consumer surplus, producer surplus and deadweight loss of this monopoly market by showing the necessary calculations.

(04 Marks)

(D) "There is an excess capacity seen in the Monopolistic Markets". Briefly explain this statement using necessary graphical illustrations.

(03 Marks)
(Total Marks 14)

Question 05

(A) Cooler and Sundrop are two firms manufacture and sell fruit drinks. Each firm has to decide whether they will maintain their current price or gives a discount to customers. If both maintain their prices, Cooler and Sundrop both earn Rs. 45Mn profit each. If both decided to provide a discount, their profit is Rs.15Mn each. Further, if one maintains the price and the other provides a discount, the one gives the discount earns a profit of Rs. 60Mn and the one maintains the price will earn Rs.15Mn loss. Assume that Cooler and Sundrop are not aware of each other's actions in advance.

(i) Determine the dominant strategy of Cooler and Sundrop by using a payoff matrix.

(04 Marks)

(ii) Is the dominant strategy the optimal strategy for both Cooler and Sundrop? Briefly explain your answer.

(03 Marks)

(B) List down four (04) obstacles to collusion

(04 Marks)

(C) Briefly explain three (03) criticisms of kinked model in Oligopoly markets

(03 Marks)
(Total Marks 14)

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