UNIVERSITY OF RUHUNA

Master of Business Management Degree Program

First Semester End Examination 2018 October

MBM 11023 - Managerial Economics

Answer five (05) questions only.

Time : 03 Hours

Total Marks 60

---

1. Two banks are operating in a duopolistic market, and each is considering whether to cut their interest rates or leave them the same. If both banks decided to maintain the same rate each bank would earn Rs. 5000 million profit. If one of the banks cut the rate and other maintain the same rate, the bank which lowered the rate would receive Rs. 7000 million profit and the other would receive Rs. 2000 million. If both bank cut the rate, each bank would earn Rs. 3000 million profit.

   i.   Develop the payoff matrix.   (03 Marks)

   ii.   Does either bank have a dominant strategy?   (03 Marks)

   iii.   Does the above game represent a Prisoner's Dilemma? Explain.   (03 Marks)

   iv.   Is there any Nash equilibrium related to two banks? Explain.   (03 Marks)

2. .

   i.   What are the three stages of the short run production function?   (03 Marks)

   ii.   Explain optimal combination of factors and expansion path using isoquant map.

      (03 Marks)

   iii.   A firm observes that its short-run average and Marginal cost curves are U shaped. Explain why.   (03 Marks)

   iv.   Why might long-run average cost curve slope a) downward or b) upward?

      (03 Marks)

3.

   i.   Differentiate the economic cost and accounting cost.   (06 Marks)

   ii.   Consider the following Cobb-Douglas production function

$$Q=1.10\, L^{0.75}\, K^{0.25}$$

Where, Q is an index of total production per year, L is an index of labour input and K is an index of capital input.

      a. Estimate the effect on index of total production a 30% increase in index of labour input and 50% increase in index of capital input.   (03 Marks)

      b. Identify the returns to scale for this production system.   (03 Marks)

4.

   i.   If the industry under perfect competition faces a downward sloping demand curve, why does an individual firm face a horizontal demand curve?   (03 marks)

   ii.   Graphically explain when a perfectly competitive firm decide to shut down production in the short run.   (03 Marks)

   iii. A perfectly competitive firm faces

$$TR= 48Q-Q^2$$
$$TC= 12+16Q+3Q^2$$

      a). How much is total fixed cost?   (02 Marks)

      b). Estimate profit maximizing level of output.   (02 marks)

      c). Estimate the profit.   (02 Marks)

5. Suppose that the demand functions for the product of two profit maximizing firms in a duopolistic industry are:

$$Q_1= 50-5P_1+2.5P_2$$

$$Q_2= 20-2.5P_2+5P_1$$

Total cost functions for the two firms are:

$$TC_1= 25Q_1$$

$$TC_2= 50\, Q_2$$

   i.   What are the reaction functions for each firm?   (4 Marks)

   ii.   Give the equilibrium price, profit-maximizing output, and profits for each firm.   (4 Marks)

   iii. Explain how monopoly is different from monopolistic competition.   (4 Marks)

6. Regression results of the demand estimation are presented in the following tables.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.917[a]	.841	.826	1.9720

a. Predictors: (Constant), Income, Price

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	433.014	2	216.507	55.674	.000[b]
	Residual	81.666	21	3.889		
	Total	514.680	23			

a. Dependent Variable: Quantity Demanded

b. Predictors: (Constant), Income, Price

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.105	2.375		-.886	.385
	Price	-.579	.105	-1.397	-5.514	.000
	Income	4.075	.493	2.095	8.266	.000

a. Dependent Variable: Quantity Demanded

i. Interpret each and every table and make proper conclusions on the demand estimation.

(06 Marks)

ii. Discuss the challenges of regression analysis in detail.

(06 Marks)

7. Suppose that a monopolist faces two markets with demand curves given by

$QD_1 = 100 - P_1$

$QD_2 = 100 - 2P_2$

Assume that the monopolist's marginal cost is constant at Rs.20 a unit

    i.   If it can price discriminate, what price should it charge in each market in order to maximize profits? (03 Marks)

    ii.   What price should it charge if it can't price discriminate? (03 Marks)

    iii. Explain three forms of price discrimination in detail. (03 Marks)

8. Explain the Transaction Cost Theory in detail. (12 Marks)

@@@@@@@@@