KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ECONOMICS

EAE 303: MANAGERIAL ECONOMICS

DATE: FRIDAY 12TH MAY 2017 TIME: 8.00 A.M. - 10.00 A.M.

INSTRUCTIONS

Answer Questions ONE and any other TWO questions

Questions One

a) Write brief notes giving distinctions between the following concepts as applied in Managerial Economics. (10 marks)

i) Explicit and implicit costs

ii) Firm's objective and constraint

iii) Economies of scope and economies of scale

iv) Price penetration and price skimming

v) Consumer survey and consumer clinic

b) Explain the certainty equivalent and risk adjusted discount rate as approaches to risk adjustments in measuring the value of a business. (6 marks)

c) "Firms exist as organizations because the total cost of producing any level of output is lower than if the firm did not exist". Discuss. (4 marks)

d) The demand function for CMC Motors product was estimated as follows

$$Q_d^a = -0.75P_a + 1.5P_b + 0.9Y + 0.02A + 40C + e$$

Where:

Q_d^a is annual demand for CMC Motors Products; P_a is the average annual price in Kshs; P_b is average product of Japanese Motors Products; Y is income per capita ; A annual advertising expenditure; C is the index for credit availability and e is the error term.

Assume that the independent variables take the following values

P_a = Kshs. 1,333,000, P_b = Kshs. 1,050,000, Y = Kshs. 20,000, C = 1.0, and A = Kshs, 1,500,000

Required

i) Interpret the results of the estimated demand (2 marks)

ii) Compute the point price elasticity of demand and interpret the result. (3 marks)

iii) At the current price level, what effect would an increase in price of the firm's product have on total revenue? Support your answer with a diagram. (3 marks)

iv) Would it be viable for the firm to continue incurring more expenses on advertisement? Support your answer. (2 marks)

Question Two

a) XYZ company has launched a new model of smart phone with the ultra HD resolution 4 times higher than the previous models. The company estimated that the short-run average cost function for producing the new model of the smart phone is as follows:

$$AC = \frac{200}{Q} + \frac{2}{Q}$$

Required

ix) Determine the algebraic expressions for the total cost and marginal cost (2 marks)

ii) Determine the total fixed cost (2 marks)

iii) Determine the number of smart phones produced, where average costs are minimized. (3 marks)

iv) Explain why the Long Run Average Cost Curve has a 'U' shape (3 marks)

b) In a free enterprise system, economic profits play an important role in guiding the decisions made by the thousands of competing independent economic units. Using relevant examples explain any five theories of profit. (10 marks)

Question Three

i) After the oil crisis on OPEC, the price of jet fuel by airlines increased dramatically. As the CEO of the Kenya Airways, you have been presented with the following options to deal with this problem:

- Raise air fares to offset the cost increases
- Reduce the number of flights per day in some markets
- Make long term contracts to buy jet fuel at fixed price for the next two years and set air fares to a level that will cover costs.

Required

i) State the shareholder's wealth maximization decision making model. (4 marks)

ii) Evaluate the above options in the context of decision making model in (i) above for Kenya airways. (6 marks)

b) The table below gives information about two projects under considerations for investment

	PROJECT A		Project B	
Sales Season	Probability	Returns	Probability	Returns
1	0.25	200,000	0.14	800,000
2	0.15	300,000	0.23	500,000
3	0.42	150,000	0.21	190,000
4	0.05	900,000	0.35	290,000
5	0.13	700,000	0.07	450,000

Required

i) Calculate the three standard measures of risk for each of the two projects (8 marks)

ii) If any one of the projects has to be recommended, which project would you recommend? (Justify your decision). (2 marks)

Questions Four

a) What is a Langragian multiplier and how important is it in optimization. (4 marks)

b) Exchange rate volatility can translate into heavy losses if there are adverse exchange rate changes between the date of the transaction and the date of the actual receipt or payment. Discuss ways in which covered hedging could be applied as a measure of foreign exchange risk management (8 marks)

c) The study of managerial economics employs both economic theory and decision science in business modeling. Using relevant examples, explain this unique relationship. (8 marks)

Question Five

a) Explain any three benefits a firm is likely to obtain internally as a result of growth in its scale of production. (6 marks)

b) A monopoly faces two markets X and Y with two different demand functions as follows

$$Q_x = 160 - 9P_x$$
$$Q_y = 220 - 10P_y$$

Suppose the firm's total cost function is given as $C = 100 + 20Q + 10Q^2$.

Determine the firm's profit maximizing output and price. Would this output be different for each market? Illustrate. (8 marks)

c) Briefly explain the steps followed in the econometric estimation of the demand by the use of regression analysis. (6 marks)