UNIVERSITY EXAMINATIONS: 2013/2014

EXAMINATION FOR THE MASTERS OF BUSINESS ADMINISTRATION (MBA)

MANAGERIAL ECONOMICS (KITENGELA)

DATE: APRIL, 2014 **TIME: 3 HOURS**

INSTRUCTIONS: Answer Question One and Any Other Three Questions

QUESTION ONE

a) Investments in ICT are important to any economy because of the productivity they bring forth. This is in tandem with efforts being made by stakeholders in the ICT sub- sector towards investments in ICT, which have so far brought a positive shock on Kenya's production function. Demonstrate how investments in ICT at the company level can impact on the firm's production function. (6 Marks)

b) Understanding an economy's business cycle is important in managerial economics because it assists managers make optimal decisions. With the aid of a well labeled diagram, show the various stages and characteristics of the business cycle. (5 Marks)

c) Various corporations can have different theories of profits explain their levels of profit. Compare and contrast as clearly as possible the innovation and the managerial efficiency theories of profits. (5 Marks)

d) Shoprite super market chain is interested in investing in the Kenyan market. It has estimated the following demand equation for its product:

$$Q_D = 12{,}000 - 40P$$
where
$P = price/unit$
$Q_D = quantity\ demanded\ \ per\ year$

The firm's total costs are 4,000 shillings when nothing is produced. These costs increase by 50 cents for each unit produced.

(i) Write the equation for the total cost function (3 Marks)

(ii) Specify the marginal cost function (2 Marks)

(iii) Obtain the optimal quantity when the firm maximizes profits (3 Marks)

(iv) What model of market pricing behaviour has been assumed in this problem? (2 Marks)

e) A shareholder approaches the manager of a firm with the following data for clarification.

Year	Output price (KES)	Quantity	Unit cost (KES)	Fixed cost (KES)
2010	6,500	100	4,000	150,000
2012	7,400	250	4,500	150,000

The investor informs the manager that the firm's share price at the Stock Market is KES 700. He requests the manager to compute the investor's required rate of return. (5 Marks)

QUESTION TWO

a) Outline the elements of decision making. (10 Marks)

b) Differentiate between the law of diminishing returns and the law of diminishing marginal rate of technical substitution. (6 Marks)

c) What is likely to be the result in the short run of a sudden exogenous increase in the level of investment demand in the economy? Explain. (7 Marks)

QUESTION THREE

a) The demand for soft drinks has been estimated as

$Q_x = 20P_X^{-0.25}P_Y^{0.45}M^2$. Determine the own, cross and income price elasticities of demand. Interpret your results. (12 Marks)

b) Suppose Kumalo Entertainment must decide whether to expand by building a few large theaters in large cities or building a number of mini theaters in small towns. Each of the alternatives would require an initial investment of $1 million. Although the large theaters have a greater expected return, the option has greater risk because there is more competition in the large cities. In contrast, there is less potential for profit in the small markets, but in many of them there is little or no competition. The expected values of the net cash flows in each of the next 7 years are $300,000 per year in the large markets and $250,000 per year in the small markets.

The CV=1.5 for the large markets and 1.0 for the small markets. If 18% would be used to discount cash flows in the large-city alternative and a rate of about 10% to discount cash-flows in the small-city alternative, which between the two should the company invest into? (6 Marks)

c) Differentiate between average and marginal products of labour. (5 Marks)

QUESTION FOUR

a) As a manager, show how you would determine the optimal amount of labour that will be employed in your firm given the level of technology and the objective of the firm being profit maximization. (10 Marks)

b) Give a detailed account of the efficiency objective for all firms. (5 Marks)

c) Questa Bank is intending to invest in two different investments with the following net cash flows.

Investment I		Investment II	
Possible NCF (KES)	Probability	Possible NCF (KES)	Probability
3600	20%	2400	20%
4400	60%	3400	60%
4700	20%	4400	20%

Evaluate the risk of the two investments and advise the management on the course of action to take. (8 Marks)

QUESTION FIVE

a) Explain the determinants of demand for your firm's product. How would understanding this determinants aid decision making? (5 Marks)

b) Ultimate Logistics is considering whether to adopt a high-price or a low-price strategy. The success of the firm's pricing strategy depends, however, on its competitors' reaction to the firm's pricing strategy. The firm estimates that if it adopts a high-price strategy, there is a 60% probability that competitors will respond with a high price of their own, and 40% that they will respond with a low price. On the other hand, if the firm adopts a low-price strategy, there is a 20% probability that competitors will respond with a high price, and 80% with a low price. Each pricing strategy on the part of the firm and competitors' price response (reaction) can occur under three states of the economy: boom, normal, and recession, with probabilities of 30, 50, and 20%, respectively.

Assume also that the estimated net present value (NPV) of profits of the firm given each pricing response of the competitors is as presented in the table below

The NPV of Profits of the Firm given each Pricing Response of competitors'

Firm Prices High		
State of economy	Competitors' pricing response	
	High	Low
Boom	60,000	50,000
Normal	40,000	30,000
Recession	20,000	20,000
Firm Prices Low		
State of economy	Competitors' pricing response	
	High	Low
Boom	50,000	35,000
Normal	40,000	30,000
Recession	25,000	25,000

Use a decision tree to advice the firm on the optimal strategy (18 Marks)

QUESTION SIX

a) With the aid of well labeled diagrams, explain the relationship between marginal revenue and price elasticity of demand. (12 Marks)

b) Explain the methods of estimating demand as presented in managerial economics. (11 Marks)