**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF BUSINESS AND ECONOMICS**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION.**

**SEMESTER 2022/2023 ACADEMIC YEAR**

**KISUMU**

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**COURSE CODE: MBA 802.**

**COURSE TITLE: MANAGERIAL ECONOMICS**

**EXAM VENUE:** **STREAM: MBA**

**DATE: 16/20/2022** **EXAM SESSION:**

**TIME: 3 HOURS**

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**Instructions**

1. **Attempt ANY four questions.**
2. **Candidates are advised not to write on the question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

**QUESTION ONE (15 MARKS)**

The market demand and market supply for a popular brand of cooking oil in the Kenyan market is given as; $Q_d$=3000-30P and $Q_s$=1000+50P. Where Q is quantity in liters, and P is price per liter. The firm has approached to advice it on:

i) the equilibrium quantity and price.**(5 MARKS).**

ii) Suppose that consumers' incomes increases as a result of a lowering of the income tax rates, and the resulting demand curve is given as; $Q_d$=4200-30P, compute the new equilibrium quantity and price. **(5 MARKS).**

iii) Suppose that in order to protect the vulnerable members of the public from unscrupulous traders, the government imposes a price ceiling equivalent to the price in (i) above, what effect would this have on quantity supplied and quantity demanded. **(5 MARKS).**

**QUESTION TWO (15 MARKS)**

a) Explain the law of variable proportions in economics.**(5 MARKS).**

b)Kamsal incorporated is a manufacturer of industrial chemicals based in industrial area, the production function is estimated as; $Q=100K^{0.6}L^{0.4}$, where K=capital, L=Labor, management is interested in knowing the;

i) Marginal product of capital and the marginal product of labor, when K=25 and L=100.

**(6 MARKS).**

ii) Type of returns to scale facing the firm**(4 MARKS).**

**QUESTION THREE (15 MARKS)**

a)Ndadho fish farm has a cost function given as; $TC=12+60Q-15Q^2+Q^3$. Suppose that the farm produces 100 pieces of fish, the farmer has approached you to help determine the farms':

i) Total cost of production**(2 MARKS).**

ii) Total variable cost**(2 MARKS).**

iii) Cost per fish**(2 MARKS).**

iv) The average variable cost**(2 MARKS).**

b) Samson has been working for a telecommunication firm in Nairobi where he earned Kes. 250000 pm. Due to the toxic work environment, Samson decided to leave employment and start his own business in the same sector (Samsol). In this new venture, his fixed cost (rent, insurance, furniture and fixtures) =100000. His variable costs (airtime, computer rentals per computer, computer supplies, electricity, water and other office expendables) =100000. Assuming that Samson does not pay himself a salary, compute Samsol's:

i) Monthly explicit costs.(**4 MARKS).**

ii) Total monthly economic costs**(3 MARKS).**

**QUESTION FOUR (15 MARKS)**

a) The management of the Nairobi express way has estimated the following demand equations for peak and off-peak vehicle users as follows:

Peak traffic$T_p$=120-0.04$Q_p$.Off-peak traffic $T_{op}$=60-0.06$Q_{op}$where T=the charge for a one way trip across the expressway. The operating cost for the expressway per trip across the express way is given as; TC=200+40Q. You have been approached as a management consultant to help determine the;

i) Price to charge for the one way trip during the peak traffic **(4 MARKS).**

ii) Price to charge for the one way trip during the off-peak traffic,**(4 MARKS).**

iii) Daily total revenue.**(2 MARKS).**

b) Discuss the different pricing strategies available to a non-collusive oligopolistic competitor
**(5 MARKS).**

**QUESTION FIVE. (15 MARKS).**

a)You have been engaged by an insurance firm as a business strategist to help them determine the best options to revive their company which is at the verge of liquidation;

i) Discuss the concept of the prisoner's dilemma in game theory?**(5 MARKS).**

ii) Distinguish between a dominant strategy and a strictly dominated strategy. Use a table example to illustrate. (**5 MARKS).**

b) Explain the concept of Managerial discretion and how it may conflict with the economic principles of efficiency. **(5 MARKS).**

**QUESTION SIX. (15 Marks).**

a) Discuss the differences between decision under risk and decision under uncertainty?

**(8 MARKS).**

**b)** A speculative land buyer is considering the prospect of investing in a piece of land around the Kisumu Airport going forof Kes.50000000. The expected on this property after 20 years is Kes. 45 000 000.

i) Will the investment be profitable if the investor has to borrow the initial outlay at a rate of 12% per annum?**(3 MARKS)**.

ii) Will the investment be profitable if the investor negotiate a cost of capital of 10.5% per annum?

**(2 MARKS).**

iii) At what cost of capital is the investor indifferent?**(2 MARKS).**