



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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GABA CAMPUS – ELDORET

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2022 TRIMESTER

FACULTY OF ARTS AND SOCIAL SCIENCES

DEPARTMENT OF ACCOUNTING AND FINANCE

SEC 312. ADVANCED MICRO-ECONOMICS THEORY

Date: December 2022	Duration: 2 Hours
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Instructions: Answer Question ONE and any other TWO Questions
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QUESTION ONE

The price of English apples is likely to rise in the coming months following the unusually cold and wet conditions during late spring and early summer, as reported by the *Sunday Telegraph*. Conditions continued to deteriorate following heavy rainfall in late August. The result was that yields were some 20% down on previous years for many English varieties. The impact has not been even, with the hardest hit apples growers suffering a 90% reduction in crops compared with average crop sizes. Some superMarkets have already raised the price of apples to around £1 per pounds (lb) and many are switching to lower price imports. Manufacturers of tarts and pastries are likely to pass on the rising cost of apple fillings, although the current recession may act as a constraint on the extent to which this will happen.

- Using demand and supply analysis, explain how the poor weather conditions are likely to affect the Market for English apples **(5 Marks)**
- Why might food manufacturers not pass on the rising cost of fillings to superMarkets? **(5 Marks)**
- Using a diagram, assess the likely effect of a fall in incomes on the Market for the fruit **(7 Marks)**
- Explain the reasons for a Market disequilibrium **(5 Marks)**

e) Suppose you have been given the following demand and supply functions

$$Q_d = 2000 - 4p \text{ and } Q_s = 400 + 4p$$

Solve for equilibrium Price and Quantity.

(8 Marks)

QUESTION TWO

a) Consider the following two commodity Markets model in which both demand and supply functions are assumed to be linear

$$Q_{s1} = -5 + 3p_1$$

$$Q_{d2} = 16 - p_1 - p_2$$

$$Q_{d1} = 8 - 2p_1 - p_2$$

$$Q_{s2} = -1 + 2p_2$$

Determine the equilibrium prices and quantities for the two commodities

(15 Marks)

b) Highlight the determinants of price elasticity of demand

(5 Marks)

QUESTION THREE

Suppose the utility function for Tracey is given by

$$U = f(X, Y) = X^{0.5} Y^{0.5}$$

Given that the price of commodity X is Kshs.3 per unit and that of commodity Y is Kshs.8 per unit.

i) Using Lagrangian multiplier technique determine units of the two commodities Tracey will buy given an income of Kshs. 2,400 in order to maximize her utility.

(10 Marks)

ii) Compute the value of U

(5 Marks)

iii) Compute the value of lambda and provide an interpretation for it. 5 Marks

QUESTION FOUR

a) Explain the importance of the law of diminishing marginal utility

(10 Marks)

b) Highlight the determinants of Market structure

(10 Marks)

QUESTION FIVE

a) Explain the characteristics of a perfect competition

(10 Marks)

b) Suppose demand function for monopoly is

$$P=1000-10Q$$

and its Cost function is

$$TC=100+32Q+Q^2.$$

Determining Price and Output under Monopoly and then compute monopoly profit.

(10 Marks)

END

DEC 22, 2021