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KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR
FIRST YEAR, FIRST SEMESTER EXAMINATION
FOR THE BACHELOR OF SCIENCE
(BUSINESS ADMINISTRATION)

Date: 15th August, 2024
Time: 8:30am -10:30am

KFI 2100 PRINCIPLES OF MICRO-ECONOMIC THEORY

INSTRUCTIONS TO CANDIDATES

ANSWER **QUESTION ONE (COMPULSORY)** AND **ANY OTHER TWO** QUESTIONS

QUESTION ONE - (30 MARKS)

NAVIGATING ECONOMIC CHOICES

Jane a young economics professional navigating the busy city life of Nairobi, Kenya finds herself in a familiar dilemma faced by many consumers that is, limited resources and unlimited desires. One day as Jane strolls through a vibrant mall gets enticed by the aroma of freshly blended smoothies coming from a nearby cafe. As she approaches the counter, she spots her favourite blend of tropical fruit costing Ksh. 200 per litre. At the same time, Jane is confronted with a classic economic dilemma where she is required to decide between indulging in the delicious smoothie, satisfying her immediate craving, or consider an alternative use for her money. Just a few steps away within the mall lies a boutique showcasing a classic and unique pair of sun glasses matching Jane's intellect and passion nurtured during her undergraduate studies. As she weighs her options, she realises that her fixed day's budget of Ksh. 500 would not allow her to have both glasses and smoothies since the glasses cost Ksh. 450. As much as purchasing the smoothie would provide immediate sensory pleasure, it would come at the expense of acquiring the glasses. After considering the basic principles of decision making as an economist, Jane decides to forego the immediate gratification of the smoothie in favour of investing in the unique glasses. While she may not get satiated in the moment by consuming a smoothie, Jane recognizes the long-term value of her decision since the glasses serve as a constant reminder of her commitment to self-growth and passion, enriching her life beyond the fleeting pleasure of a single indulgence.

Based on the case above, answer the following questions:

a) The case portrays a case where Jane is trying to decide on what to consume and how to spend her Ksh. 500. Identify and explain three economic principles which should form her basis of decision making as a rational consumer. **(6 Marks)**
b) Describe how the case study illustrates the concept of opportunity cost in economic decision-making. **(5 Marks)**
c) Briefly explain any five non-price factors which Jane had put into consideration before buying the glasses. **(5 Marks)**

d) With Jane's budget of Ksh. 500, assume that she could buy both smoothies and glasses at her fixed budget at the price of P1 and P2 respectively. Write a hypothetical equation of Jane's budget constraint and represent the corresponding budget line on a graph. **(5 Marks)**

e) Given that the mall that Jane shops is operating under a monopoly, outline five characteristics of this market structure. **(5 Marks)**

f) Assuming the aggregate demand function for glasses in this market is $Qd=100-2P$, and that the initial market demand of glasses at the price of Ksh. 450 is 500 units. Calculate the price elasticity of demand for glasses and interpret your answer. **(4 Marks)**

QUESTION TWO- (20 MARKS)

a) Microeconomics seeks to analyse the behaviour of individual economic agents such as consumers and producers by obtaining knowledge from economic theories such as consumer theory and producer theory. Describe three differences between the consumer theory and producer theory. **(6 Marks)**

b) Household's equilibrium require choosing a bundle of goods that would provide maximum utility to the household. Using the indifference theory approach, explain and graphically illustrate the two equilibrium conditions for a consumer. **(8 Marks)**

c) Consider a firm using a Cobb-Douglas production function of the form $Q = 2L^{\frac{1}{3}}K^{\frac{2}{3}}$. If the firm decides to change each of the inputs by t times, calculate the degree of homogeneity of this production function, and comment on the returns to scale it portrays. **(6 Marks)**

QUESTION THREE- (20 MARKS)

a) Production costs are graphically shown as a function of output holding other factors constant. Describe your understanding on the total variable cost, average variable cost, average fixed cost and marginal cost, and show their relationship on a graph. **(8 Marks)**

b) Explain the short run equilibrium conditions of a profit making firm operating under a perfectly competitive firm and show it on a graph. **(6 Marks)**

c) Describe the maximum price policy as a cause of market instability and illustrate this condition using a graph. **(6 Marks)**

QUESTION FOUR- (20 MARKS)

a) The following information was collected from a firm that is operating in the short run:

antity of Labour	**Total Output/Product**	**Average Product**	**Marginal Product**
0	0	-	-
2	8	-	-
4	20	-	-
6	30	-	-
8	34	-	-
10	34	-	-
12	32	-	-
14	27	-	-

Required:

i) Differentiate between the short run and long run production periods in a firm **(2 Marks)**

ii) Give and explain the relevant equations for marginal product of labour and average product of labour **(4 Marks)**

iii) Fill in all the missing values in the table above. **(4 Marks)**

b) Explain the practical significance of economics to producers in an economy **(8 Marks)**

c) Interpret the scarcity definition of economics as suggested by Lionel Robbin (1932) **(2 Marks)**

QUESTION FIVE- (20 MARKS)

a) The market for smartphones is a dynamic and highly competitive sector within the consumer electronics industry which revolves around production, distribution, and sale of handheld mobile devices that combine telecommunication and computing capabilities. Discuss how each of the following influence elasticity of supply for smartphones:

i) Technological deepening **(2 Marks)**
ii) Availability of factors of production **(2 Marks)**
iii) Time period **(2 Marks)**
iv) Nature of the commodity **(2 Marks)**

b) Isoquants are tools of analysis in production and they may assume various shapes depending on the degree of substitutability. Explain the properties of isoquants that may arise out of producers' decisions. **(6 Marks)**

c) Taking your country as an example, describe the characteristics of the economic system in which it operates. **(6 Marks)**