ПAMIBIA UПIVERSITY
OF SCIEПCE AПD TECHПOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCAITON

DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE

QUALIFICATION : BACHELOR OF ECONOMICS, BACHELOR OF ACCOUNTING AND BACHELOR OF ACCOUNTING (CHARTERED)	
QUALIFICATION CODE: O7BEC0	LEVEL: 7
COURSE CODE: IMI611S	COURSE NAME: INTERMEDIATE MICROECONOMICS
SESSION: JULY 2024	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Mr Eslon Ngeendepi
MODERATOR:	Miss Ndeshi Shitenga

INSTRUCTIONS
1. Answer ALL the questions.
2. Write clearly and neatly.
3. Number the answers clearly.

PERMISSIBLE MATERIALS
1. Pens/pencils/erasers
2. Calculator
3. Ruler

THIS QUESTION PAPER CONSISTS OF 5 PAGES (Including this front page)

QUESTION 1

1. Explain the relationship between ordinal and cardinal utility and the indifference approach and utility approach. (4)

2. Carmen consumes two products: breakfast cereal and coffee. The following table shows four combinations of cereal and coffee that will give Carmen the same amount of satisfaction. Use the information given in this table and draw Carmen's indifference curve. (Put cereal on the vertical axes). (5)

Combination	Cereal	Coffee
1	6	12
2	12	6
3	18	4
4	24	2

3. Explain the law of diminishing marginal rate of substitution. (3)
4. Explain, with the aid of a diagram, what happens in the market for electricity if the government fixes a maximum price below the equilibrium price. (8)

QUESTION 1

a) Use demand and supply curves to illustrate and explain why a rare item such as a painting by Rembrandt, Rubens, Van Gogh, Picasso or Munch is sold at such a high price. (5)

QUESTION 2

a) The linear supply function is $Q = g + hp$. Derive a formula for the elasticity of supply in terms of p (and not Q). Now write a formula entirely in terms of Q. (5)

b) Do you care whether a 15¢ tax per gallon of milk is collected from milk producers or from consumers at the store? Why? (5)

c) Andy purchases only two goods, apples (a) and kumquats (k). He has an income of $40 and can buy apples at $2 per pound and kumquats at $4 per pound. His utility function is $U(a, k) = 3a + 5k$. That is, his (constant) marginal utility for apples is 3 and his marginal utility for kumquats is 5. What bundle of apples and kumquats should he purchase to maximize his utility? Why? (12)

d) Why would a consumer's demand for a supermarket product change when the product price is quoted inclusive of taxes rather than before tax? (3)

QUESTION 1

a) Don spends his money on food and on operas. Food is an inferior good for Don. Does he view an opera performance as an inferior or a normal good? Why? In a diagram, show a possible income-consumption curve for Don.has decreased. (8)

b) Alix views coffee and cream as perfect complements. In the first period, Alix picks an optimal bundle of coffee and cream, $e1$. In the second period, inflation occurs, the prices of coffee and cream change by different amounts, and Alix receives a cost-of-living adjustment (COLA) based on the Consumer Price Index (CPI) for these two goods. After the price changes and she receives the COLA, her new optimal bundle is $e2$. Show the two equilibria in a figure. Is she better off, worse off, or equally well off at $e2$ compared to $e1$? Explain why. By how much will a CPI for these two goods differ from the true cost-of-living index? (5)

QUESTION 2

a) To produce a recorded CD, $q = 1$, a firm uses one blank disk, $D = 1$, and the services of a recording machine, $M = 1$, for one hour. Draw an isoquant for this production process. Explain the reason for its shape. (5)

b) A firm is considering selling a new good at an introductory price that is less than the monopoly price. By doing so, it hopes to create a critical mass of users and benefit from an increased future demand generated by a positive network externality for the product. The marginal cost of production is constant at $MC = 4$ and equal to the average cost. The inverse demand curve for the product is $p = 20 - 4Q$.

I. If the firm were to charge the monopoly price, what would its total profits be over two periods? (10)

II. If the firm tried to take advantage of the positive network externality by instead charging the competitive price in the first period and the monopoly price in the second period, by how much would the demand curve have to rotate outward (that is, its slope has to change) before the firm's total profits over the two periods exceeded your answer to part a? (15)

QUESTION 3

a) Whenever Aliza buys a flashlight, she also always buys exactly two batteries along with it. Any more than two batteries will serve no purpose, because she will not be able to use them in the flashlight. Any more flashlights will not be useful either, because there will not be enough batteries for her to make use of them. Show her preference map. What is her utility function? (7)

TOTAL = 100 MARKS