



**PAMIBIA UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

**FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION**

**DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE**

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

**FIRST OPPORTUNITY EXAMINATION QUESTION PAPER**

<b>EXAMINER(S)</b>	<b>Mr Eslon Ngeendepi</b>
<b>MODERATOR:</b>	<b>Miss Ndeshi Shitenga</b>

**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)**

**SECTION A**

**20 Marks**

**QUESTION 1**

- 1.1 List the three basic assumptions of indifference curves. (6)
- 1.2 Rethabile sells jewellery that she makes. Wooden bead necklaces are her best product, she sells 40 a month, for N\$120 each. When Rethabile wants to make more money and increases the price by 25%, the quantity demand decreases by 15%.
- i. Calculate the price elasticity of demand for the wooden bead necklaces? (4)
  - ii. What should Rethabile do to increase revenue? (2)
- 1.3 When the price of peanut butter is N\$15 per jar, the quantity demanded of jam is 1 500 jars. When the price of peanut butter increases to N\$17 per jar, the quantity demanded of jam increases to 1 600 jars. Are peanut butter and jam complements or substitutes? (2)
- 1.4 When the price of product A decreases from N\$42 500 to N\$1 600, the quantity demanded of product B increased by 20%. Are products A and B complements or substitutes? (2)
- 1.5 When the price of product A decreases from N\$2 500 to N\$1 600, the quantity demanded of product B increased by 20%. Are products A and B complements or substitutes? (2)
- 1.6 When the electricity price increases by 19%, the quantity electric appliance demanded will decrease by 2%. Are electricity and electric appliance complements or substitutes? (2)

**SECTION B**

**20 Marks**

**QUESTION 1**

Explain, with the aid of a diagram, what will happen if the government fixes a minimum price for maize above the equilibrium price. (6)

**QUESTION 2**

Eva has a budget of N\$1200, with which she can buy books or buy internet data. A book costs about N\$50, while a unit of internet costs about N\$60.

- (a) Given this information, draw Eva's budget line (put books on the vertical axes). (4)
- (b) After improvements in internet technology, the cost of a unit of internet decreased. Now Eva, only pays N\$40 per unit of internet. Using the same graph as in 5(a), draw Eva's new budget line. (2)
- (c) Derive the Marginal Rate of Transformation before and after improvement in internet technology. (4)

**QUESTION 3**

Gift must buy food and clothing. He has N\$1200 to buy both, clothes are N\$120 per item and food is N\$30 per meal.

- (a) Draw Gift's budget line, showing clothes on the vertical axes. (1)
- (b) On the same graph, draw three possible indifference curves. The first indifference curve, labelled  $U_1$ , should be affordable but does not produce optimal satisfaction. The second indifference curve, labelled  $U_2$ , should show the optimal satisfaction that Gift can afford and the third indifference curve, labelled  $U_3$ , should be beyond Gift's means. (3)

**SECTION C**

**20 Marks**

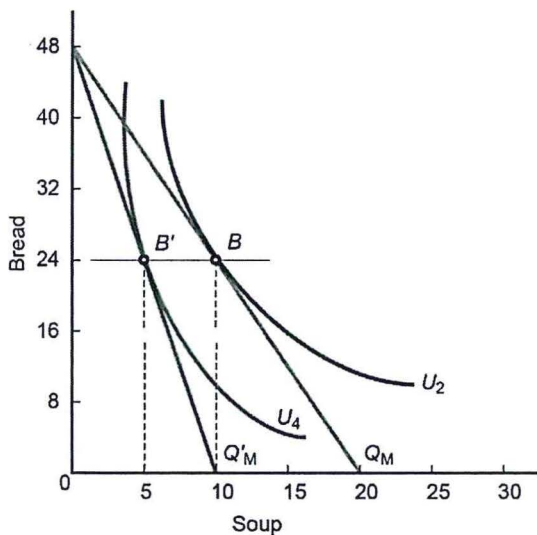
**QUESTION 1**

Annie consumes two goods, chocolates and chips. Chocolates are three times more expensive than chips. But during a special, the price of chocolates is dropped, so chips and chocolates are the same price. Draw Annie's initial budget curve and show her utility maximising indifference curve, with chocolate on the vertical axes. On the same curve show, show Annie's new budget line, with the substitution effect and income effect after the price of chocolate has decreased. (12)

**QUESTION 2**

Derive the demand curve of soup, given the following indifference curve. Assume that the price of bread is N\$10. (8)

Answer:



**SECTION D**

**20 Marks**

**QUESTION 1**

a)

Complete the table below:

Product	Labour ( $\alpha$ )	Capital ( $\beta$ )	Scale	Type of return to scale
U.S. tobacco	0.18	0.33		
Japanese Beer	0.40	0.60		

(4)

b) Suppose that a firm's production function is  $q = 2KL$ , where  $L$  is labor services and  $K$  is capital services, and that  $K = 3$ . What are the total product, average product of labor, and marginal product of labor curves? (6)

c) To explain input substitutability, make use of diagrams to depict the following relationships.

i. Perfect substitutes. (5)

ii. Perfect complements. (5)

**SECTION E**

**20 Marks**

**QUESTION 1**

a) A firm's profit function is  $\pi(q) = R(q) - C(q) = 120q - (200 + 40q + 10q^2)$ . What is the positive output level that maximizes the firm's profit (or minimizes its loss)? What are the firm's revenue, variable cost, and profit? Should it operate or shut down in the short run? (10)

b) If the inverse demand function is  $p = 500 - 10Q$ , what is the elasticity of demand and revenue at  $Q = 10$ ? (10)

**TOTAL = 100 MARKS**