

**NATIONAL UNIVERSITY OF LESOTHO
INSTITUTE OF EXTRA MURAL STUDIES
DEPARTMENT OF BUSINESS AND MANAGEMENT DEVELOPMENT
BACHELOR OF ARTS IN BUSINESS AND ENTREPRENEURSHIP
BBE1305 - BUSINESS ECONOMICS 1**

JANUARY 2023

TIME: 3 HOURS

MARKS:100

INSTRUCTIONS: Answer **any FOUR** questions

QUESTION 1

Complete the table below and answer the questions that follow.

[16]

Units of Labour (L)	Total Product (TP)	Average Product (AP)	Marginal Product (MP)
0			0
1	12		
2		20	
3			35
4	108		
5			17
6		22	
7		18	

- a) At how many units of labour is the highest TP reached? [2]
- b) At how many units of labour is the highest MP reached? [2]
- c) At how many units of labour is the highest AP reached? [2]
- d) At how many units of labour is MP negative? [3]

[25 Marks]

QUESTION 2

George has R100 in income to be spent on hamburgers (H) and milk (M). The price of milk is R1 per unit and George is currently consuming at a point on his budget line that consists of 10 hamburgers and 10 units of milk.

- a. Draw George's budget line in a graph with milk measured on the horizontal axis and hamburgers on the vertical axis. Label this graph clearly and completely.
- b. Given the above information, what is the price of a hamburger?
- c. Write an equation for George's budget line? (Keep your equation with improper fractions rather than converting the equation to decimals.)
- d. Given the above information and your calculations identify whether the combinations of milk and hamburgers below are on George's budget line, are inside his budget line, or are beyond his budget line.

Combination	Hamburgers	Milk	Location
A	8	30	
B	6	46	
C	2	80	
D	10	9	
E	11	2	

[25 Marks]

QUESTION 3

You are given the following table and asked to complete the table. You are also told that the price of labor (L) is R2 per unit of labor and the price of capital (K) is R5 per unit of capital.

a) Complete the table and answer the questions below: [16]

Labor (L)	Capital (K)	Output (Q)	Marginal Product of Labor (MPL)	Variable Cost (VC)	Fixed Cost (FC)	Total Cost (TC)	Average Variable Cost (AVC)	Average Fixed Cost (AFC)	Average Total Cost (ATC)	Marginal Cost (MC)
0	10	0	-----				-----	-----	-----	-----
1	10	50								
2	10	70								
3	10	80								
4	10	88								
5	10	90								

b) write a formula for each of the followings [9]

- a. $ATC =$ _____
- b. $ATC =$ _____ + _____
- c. $MC =$ _____ / _____
- d. $VC =$ _____ * _____
- e. $VC / (\text{price of labor}) =$ _____
- f. $TC =$ _____ * _____

g. $AFC = \frac{\text{Total Fixed Cost}}{\text{Quantity}}$ - _____

h. $MPI = \frac{\text{Percentage Change in Quantity}}{\text{Percentage Change in Price}}$ / _____

[25 Marks]

QUESTION 4

- a) Suppose you are told that the price elasticity of demand for soft drinks is 2.0; the cross price elasticity of demand of soft drinks for iced tea is 1.5; the cross price elasticity of demand of soft drinks for popcorn is -2.0; and the income elasticity of demand for soft drinks is 1.2. Use this information to answer the following question.
- i. Describe verbally the relationship between soft drinks and popcorn. In your statement describe how you know these two Describe goods have this relationship. [5]
 - ii. verbally the relationship between soft drinks and iced tea. In your statement describe how you know these two goods have this relationship. [5]
 - iii. Are soft drinks a normal or an inferior good given the above information? Explain your answer fully. [5]
- b) Explain the term ‘diminishing returns to labor’. Draw a diagram to illustrate the relationship between total output and labor if there are diminishing returns to labour (10). [25 Marks]

QUESTION 5

- a) Discuss the four types of market structures, briefly explain number of firms, the nature of product, freedom of entry and power over product sold under each structure. [12]
- b) Calculate the amount of total revenue, average revenue and marginal revenue and fill the table below: [13]

Number of customers (per week)	Price	Total Revenue	Average Revenue	Marginal Revenue
0	M8.00	-	-	-
1	M7.50			
2	M7.00			
3	M6.50			
4	M6.00			
5	M5.50			
6	M5.00			
7	M4.50			
8	M4.00			

[25 Marks]

QUESTION 6

Mrs. Sefali sells pizza by the slice at Mahlasela Afri Ski resort. She competes with other vendors who sell other prepared foods and snacks items. How will each of the following scenarios changes affect the demand for Mrs. Sefali's pizza slices? Explain and draw a graph for each scenario

- a) The cost of natural gas for his pizza ovens increases dramatically. (6)
- b) Taco vendors, Mrs. Sefali's competitors, dramatically drop the price of their tacos. (7)
- c) Heavy snow attracts record numbers of skiers to the resort. (6)
- d) The price of flour which is the major ingredient in pizza drops. (6)

[25 Marks]