



"Investing in Africa's Future"

COLLEGE OF BUSINESS PEACE LEADERSHIP AND GOVERNANCE

NMEC101: ECONOMIC PRINCIPLES 1

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER 2023

LECTURER: MR T MASESE

TIME: THREE HOURS

INSTRUCTIONS

Answer **ALL** Questions in this paper

MARKS ALLOCATED TO EACH QUESTION ARE SHOWN

CLEAR AND NEATLY PRESENTED WORK WILL BE AWARDED
MARKS FOR PRESENTATION

Question 1

- a. Suppose you have been given the following demand and supply curves for avocados:
 $Q_d = 160 - 40p$ and $Q_s = 50 + 15p$ where Q is the quantity and P is the price.
- Calculate the equilibrium price and quantity **(3 marks)**
 - Draw a table which shows the quantities demanded and supplied for the following prices: \$1.40, \$1.60, \$1.80, \$1.80, \$2.00, \$2.40 and \$2.60 **(5 marks)**
 - Sketch the two functions on a clearly labeled demand and supply framework indicating the equilibrium points **(3 marks)**
 - Suppose the price of avocados rises from \$1.80 to \$2, calculate the price elasticity of demand and supply using the mid-point method **(3 marks)**
 - Suppose the government sets up a maximum price of \$1.60, what will be the effect on the market for avocados? What will be the quantity supplied and demanded at this price? What do we call such a price control? **(4 marks)**
 - Suppose the government sets a minimum price of \$2.40 for avocados. How much will be supplied and demanded in this market? What do we call this kind of price control and why are such controls implemented? **(3 marks)**
- b. Outline and explain any 3 determinants of advertising elasticity of demand. Why are both the price elasticity of demand and the price elasticity of supply likely to be greater in the long run? **(4 marks)**

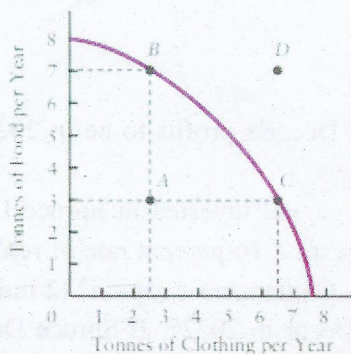
Question 2

- a. The following table shows the original and new levels of price and quantity as well as the average price and average quantity.

Product	Unit	Original Price (\$)	New Price (\$)	Average Price (\$)	Original Quantity	New Quantity	Average Quantity
Cheese	kilogram	5.00	3.00	4.00	116 250	123 750	120 000
T-Shirts	Shirt	17.00	15.00	16.00	187 500	212 500	200 000
MP3 players	player	81.00	79.00	80.00	9 750	10 250	10 000

Calculate the price elasticity of demand for cheese, t-shirts and MP3 players using the mid-point formula and comment on each of the elasticity coefficients **(8 marks)**

- b. Consider an economy that produces only food and clothing. Its production possibilities boundary is shown below
- The production possibilities boundary below illustrates a number of concepts: scarcity, choice and opportunity cost. Explain. **(6 marks)**
 - If the economy is at point A, how many tonnes of clothing and how many tonnes of food are being produced? At point B? At point C? **(3 marks)**



- iii. What do we know about the use of resources at point A? Point D? How would it be possible for the economy to produce at point D? **(3 marks)**
- iv. Give 3 examples of goods of the future. Explain and illustrate how an economy that chooses to produce more goods of the future now would differ from one that chooses to produce more consumption goods. **(5 marks)**

Question 3

- a. Briefly state the basic characteristics of pure competition, pure monopoly, monopolistic competition, and oligopoly. Under which of these market classifications does each of the following most accurately fit? (a) a mobile telecommunication company in your country which is one of 4 countries in the country (b) the only supplier of electricity in the country (c) a wheat farm which is one of the over a thousand farmers in the country; (d) the commercial bank in which you or your family has an account; (e) a supplier of orange juice which is one of the many orange juices found in the supermarkets. In each case justify your classification **(9 marks)**
- b. For each of the following statements, determine whether there has been a change in supply or a change in quantity supplied. Draw a demand-supply diagram for each situation to show either a movement along the supply curve or a shift of the supply curve. Explain the effect on the equilibrium price and quantity.
 - i. The price of Vumba-grown peaches skyrockets during an unusually cold summer that reduces the size of the peach harvest **(2 marks)**
 - ii. An increase in income leads to an increase in the price of beef and also to an increase in beef sales **(3 marks)**
 - iii. Technological improvements in the microchip lead to price reductions for laptop computers and an increase in laptop computer sales **(3 marks)**
 - iv. Greater awareness of the health risks from smoking lead to a reduction in the price of cigarettes and to fewer cigarettes being sold **(2 marks)**
- c. Consider the revenues and costs in 2022 for Spruce Decor Inc., a Mutare -based furniture company entirely owned by Ms. Chinamano

Furniture Sales	\$ 645000
Catalogue Sales	\$ 12 000
Labour Costs	\$ 325 000

Materials Costs \$ 157 000
Advertising Costs \$ 28 000
Debt-Service Costs \$32 000

- What would accountants determine Spruce Décor's profits to be in 2022? (2 marks)
- Suppose Ms. Chinamano has \$400 000 of capital invested in Spruce Decor. Also suppose that equally risky enterprises earn a 16-percent rate of return on capital. What is the opportunity cost for Ms. Chinamano's capital? (2 marks)
- What are the *economic* profits for Spruce Decor in 2022? If Spruce Décor's economic profits were typical of furniture makers in 2022, what would you expect to happen in this industry? Explain (2 marks)

Question 4

- A firm has fixed costs of \$60 and variable costs as indicated in the table below. Complete the table and graph total fixed cost, total variable cost, and total cost. Explain how the law of diminishing returns influences the shapes of the variable-cost and total-cost curves. Graph AFC, AVC, ATC, and MC. Explain the derivation and shape of each of these four curves and their relationships to one another. Specifically, explain in nontechnical terms why the MC curve intersects both the AVC and the ATC curves at their minimum points.

Total Product	Total Fixed Cost	Total Variable Cost	Total Cost	Average Fixed Cost	Average Variable Cost	Average Total Cost	Marginal Cost
0	\$ 60	\$ 0	\$			\$	
1	60	45					
2	60	85					
3	60	120					
4	60	150					
5	60	185					
6	60	225					
7	60	270					
8	60	325					
9	60	390					
10	60	465					

(15 marks)

- Cee manufactures a line of refrigerators that currently sell for \$650 each. Its sales averaged about 4500 units per month during the past year. In August Cee's closest competitor, Dee cut its price for a closely competitive model from \$600 to \$400. Cee noticed that its sales volume declined to 3500 units per month after Dee announces its price cut.
 - What is the cross elasticity of demand between Cee and Dee's competitive model (4marks)
 - If Cee knows that the price elasticity of demand for its refrigerators is -2.5, what price would Cee have to charge to sell the same number of units it did before the Dee price cut?

(6 marks)

END OF PAPER