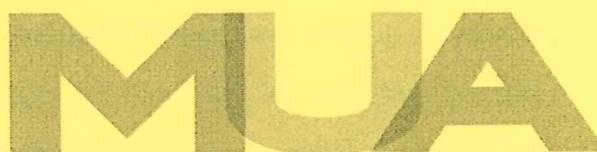### The Management University of Africa

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UNDERGRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

DEGREE OF BACHELOR OF COMMERCE/ BACHELOR OF MANAGEMENT AND LEADERSHIP

BML 200/ BCM 215:   **MICRO ECONOMICS**

DATE: *14TH DECEMBER 2022*

DURATION: **2 HOURS**

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. **Write all your answers in the Examination answer booklet provided.**

QUESTION ONE

Naivasha Breweries is a beer and wine manufacturing firm, located in Naivasha Town. The company supplies its products throughout Kenyan market. One of the products is called Obikwa Wine, and Naivasha Breweries has market monopoly for this product. The poduction cost function for this wine is

$$C(X) = 2x^2$$

where X is the number of bottles produced.

Required:

(a) Find the marginal cost of producing a bottle of Obikwa Wine.   **(2 marks)**

(b) The demand for Obikwa Wine is XD = 12 – 0.25P. Find the level of output that maximizes Naivasha's profits. What price is Naivasha charging?   **(6 marks)**

(c) What level of output would maximize total surplus in the Obikwa Wine market?   **(4 marks)**

(d) Suppose the government knew the demand and production functions. Suggest the price regulation the government could impose that would induce Naivasha to maximize total surplus, i.e. produce efficient quantity from part (c) above.   **(4 marks)**

(e) If the government subsidized Naivasha brewery for every bottle of Obikwa produced, what quantity would Naivasha choose as a function of s? Find the choice of subsidy that maximizes total surplus i.e. induces Naivasha to produce the efficient quantity from part d.   **(6 marks)**

(f) Both the price regulation policy from part (d) and the sudsidy policy from part (c) maximize total surplus. Is there any reason someone might prefer one policy over the other?   **(3 marks)**

QUESTION TWO

a) Originally the consumer faces the budget line $P_1X_1 + P_2X_2 = m$. Then the price of good 1 doubles, the price of good 2 becomes 8 times larger, and income becomes 4 times larger. Write down an equation for the new budget line in terms of the original prices and income. **(4 marks)**

b) Your county government puts a tax of 15 cents a gallon on kerosene and then later decides to put a subsidy on kerosene at a rate of 7 cents a gallon. What net tax is this combination equivalent to? **(4 marks)**

c) If in a particular market the demand function is given as $q = 2 - \frac{1}{5} P$ and the corresponding supply curve is

$$q = 0.2 + \frac{7}{10} P$$

find the equilibrium price **(7 marks)**

QUESTION THREE

a) Two consumers have the following utility functions:-

consumer 1: $U = X^{0.4} Y^{0.6}$

Consumer 2: $U = 2X^{0.5} Y^{0.25}$

Where X and Y are two goods.

If $P_x = 2$ and $P_y = 3$ and each consumer has an income constraint of 45,

Find the quantities of X and Y which will maximize utility, subject to the income constraint, for each consumer. **(10 marks)**

b) Money circulation in the economy is controlled by the Central Bank using the monetary policy tools. Highlight **five** objectives of monetary policy. **(5 Marks)**

QUESTION FOUR

(a) In consumer theory, different indifference curves are constructed to represent the different consumer preference. Using appropriate diagrams, describe any two (2) common preferences and the curves used to represent them. **(10 marks)**

(b) Referring to an appropriate demand curve, of a Veblen good, discuss its behaviour that defies the law of demand. **(5 marks)**

QUESTION FIVE

a) Define market power. **(1 mark)**

b) Define a duopoly **(1 mark)**

c) State and explain any two sources of monopoly power. **(4 marks)**

(d) Use a well labeled diagram to differentiate between changes in quantity supplied versus changes in supply **(8 Marks)**

QUESTION SIX

a) Distinguish between positive economics and normative economics **(2 Marks)**

b) Identify and explain two production functions have on input buyers expenditure. **(5 marks)**

c) State and explain **four** factors influencing price elasticity of demand. **(8 Marks)**