KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ECONOMICS

EET 100: MICROECONOMIC THEORY 1

DATE: Tuesday 28th November 2017 **TIME: 2.00p.m -4.00p.m**

INSTRUCTIONS: ANSWER QUESTION ONE, AND ANY OTHER TWO QUESTIONS

Question one (Compulsory)

a) Briefly explain the differences between the following economic terms and phrases. Use well-labeled diagrams and give examples where necessary. **(10 Marks)**

(i) Increase in demand and Increase in quantity demanded
(ii) Production possibilities Frontier and Supply curve
(iii) Price elasticity of demand and Income elasticity of demand
(iv) Isoquants and Indifference curves
(v) Normative and deductive analysis

b) The Kenya Metrological Department recently released a report indicating that the country will receive sufficient rains this season after a prolonged drought that negatively affected maize farmers in the country. It is expected that the rainfall will improve yields this year. Also considering that maize farmers are the main beneficiaries of the fertilizer subsidies that were availed beginning of this financial year, maize output is expected to increase. The ministry of agriculture also released a report indicating that consumption of maize will continue to increase because of many immigrants who are coming into the country from the neighboring countries that are experiencing political instability. Consider the above scenarios. Using demand and supply diagrams, illustrate how these scenarios will affect the market equilibrium price and quantity of maize. Assume that all other factors that could affect the market for maize remain unchanged. **(6 marks)**

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c) The total cost equation in the production of beef at some hypothetical factory is:

$C=1000+100Q-15Q^2+Q^3$

Cost (C) is measured in Ksh. While beef in metric tones.

i) Compute the total and average costs at output levels of 10 and 11 tonnes (4 marks)

ii) What is the marginal cost of the 12th tone? (3 marks)

d) Distinguish between perfect competition and monopolistic competition. (4 marks)

e) Briefly explain why demand curve slopes downwards (3 marks)

Question two

a) Use a well-labeled diagram to explain the relationships that exist between average total cost, average variable cost, and marginal cost. **(10 marks)**

b) Graphically demonstrate consumer surplus and Producer surplus. **(5 marks)**

c) Their exist a market where there is only one seller who determine the price at which to sell their commodities, entry is restricted and goods do not have close substitutes.Explain the sources of firms power in this market structure

(5 marks)

Question three

a) The following economic function has been derived by the manager of Annex limited company

$Q_a = 3P^2 - 4P$

$Q_b = 24 - P^2$ where P represents price and Q is the quantity

Required:

i) Which of the two functions could represent a demand curve? A supply curve? Why? **(4marks)**

ii) At what values of price and quantity is the market in equilibrium? **(6 marks)**

b) In an attempt to protect poor consumers the government can decide to set the prices of basic commodities below market equilibrium. Using a well labeled diagram explain the consequences of such a policy to the economy

(10marks)

Question four

a) Explain the determinants of elasticity of Demand. **(5 marks)**

b) Discus five qualities of a well-behaved indifference curve. **(5 marks)**

c) A consumer is confronted by a constrained utility maximization problem:

The utility function;

$U = 4N + 2M - 0.4N^2 - 0.1M^2$

Where (U) is total utility.
N and M are the two commodities comprising the commodity basket that the consumer is consuming

The budget constrain is given as;
$4.8 = 0.2P_N + 0.4P_M$

(i) Calculate the equilibrium quantities of commodities x and z for the consumer **(8 marks)**

(ii) Calculate the total utility derived by the consumer. **(2 marks)**

Question five

a) Giving examples from your country, outline the characteristics of a oligopoly market structure **(5 marks)**

b) Briefly explain the assumptions of cardinal approach to utility (5 marks)

c) Using the ordinalist approach, show how the engels curve for a normal good is derived. (10 marks)