UGANDA MARTYRS UNIVERSITY

FACULTY OF SCIENCE
DAPARTMENT OF ECONOMICS

SUPPLEMENTARY EXAMINATIONS, 2013/14

FIRST YEAR EXAMINATIONS FOR BACHELOR OF SCIENCE
(FM, B.ECON & GEN)

ECO 2101: MICRO - ECONOMICS II

DATE: Monday, August 11, 2014

TIME: 02:00PM – 05:00PM

Instructions:

(i) Read the questions carefully.

(ii) Attempt any FOUR questions.

(iii)All questions carry equal Marks.

(iv) Use of relevant illustrations will be credited.

Question One

(a) Using the theory of demand, explain why demand for mobile phones in Uganda has been increasing for the last decade. ***(10 Marks)***

(b) If $Q_d = 36 - 4P$ and $Q_s = -12 + 12P$ are demand and supply functions of the commodity respectively:

(i) Find the equilibrium price and quantity of the commodity. ***(05 Marks)***

(ii) Find price elasticity of demand for the product at equilibrium point. ***(04 Marks)***

(iii) Determine the values of consumer's surplus and producer's surplus. ***(06 Marks)***

Question Two

(a) With graphical illustrations; explain the indifference curve and state its characteristics. ***(10 Marks)***

(b) Given the consumer's utility function as $U = (X, Y)$ subject to his budget constraint $B = P_xX + P_yY$, show that the consumer maximizes his utility when $\frac{MU_x}{P_x} = \frac{MU_y}{P_y}$, assuming that his budget ***(B)***, prices (P_x) for X and (P_y) for Y are all fixed. ***(15 Marks)***

Question Three

(a) Using relevant examples, explain how the concept of elasticity is applicable in economic and business management ***(10 Marks)***

(b) Graphically illustrate how the tax imposed on inelastic demand product is distributed between the producer and the consumer. ***(06 Marks)***

(c) Given that Total Revenue TR = PQ. Show that Marginal Revenue MR = P $(1 - 1/\mathcal{E}_p)$ where $\mathcal{E}_p$ is price elasticity of demand for the product and explain how revenue changes with $\mathcal{E}_p$. ***(09 Marks)***

Question Four

(a) Briefly explain the concepts of marginal rate of substitution ***(MRS)*** marginal rate of technical substitution ***(MRTS)***. ***(05Marks)***

(b) Graphically illustrate the equilibrium situation of the producer and show that at the point of equilibrium, $MP_L/MP_K = P_L/P_K$. ***(10Marks)***

(c) Examine factors which limit the growth of firms in Uganda. ***(10 Marks)***

Question Five

(a) Brief explain common objectives of most firms globally. ***(08 marks)***

(b) Using the theory of profit maximization, show that the firm maximizes profits at an output level where the firm's marginal revenue (MR) equals to its marginal cost (MC). ***(06 Marks)***

(c) Given that TR and TC are functions of output (Q) such that;

$TR = 600Q - 3Q^2$ and $TC = 1000 + 100Q + 2Q^2$, determine the following:

(i) The value of fixed costs. ***(02Marks)***

(ii) The expressions for MR and MC. ***(04Marks)***

*(iii)*The output level at which profits are maximized. Hence compute the maximum profits. ***(05Marks)***

Question Six

(a) Briefly explain the structure-conduct- performance model used in the analysis of market structures in an economy ***(05 marks)***

(b) Describe the concept of price discrimination and state its importance to firms or government in an economy. ***(10Marks)***

(c) Give at least one example of monopolist in Uganda and state the sources of monopoly power for firms in an economy. ***(10Marks)***

END