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MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2013/2014

FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF MASTER OF ARTS IN ECONOMICS

(HOMA BAY CAMPUS)

AEC 801: ADVANCED MICRO-ECONOMICS

Date: 24th November, 2013 *Time: 2.00 - 5.00 p.m.*

INSTRUCTIONS:

- **Answer ANY FOUR questions.**

QUESTION 1: In general Equilibrium analysis, a consumer's income y depends on the value of his endowment which in turn depend on prices, $y(p) = p.w$.

Derive the Slutsky equation. **15 marks**

QUESTION 2:

Suppose that we want to estimate the parameters of a production function, where we can control the production process. We choose capital (K) and lab our (L) a random, plug these into the production process and observe the output $Y + \epsilon$.

Suggest a reasonable way to estimate the parameters of the production function. **15 marks**

QUESTION 3:

An allocation X is strongly Pareto efficient if there is no feasible allocation Y such that $Yi \geq i\ \chi_i$ for $i = 1,---,n$ and there is some j such that $Y_j \geq j\chi j$.

Show that if preferences are strongly monotonic and continuous, then an allocation is Pareto efficient by the definition if and only if it is strongly Pareto efficient. **15 marks**

QUESTION 4

Let $\chi = x(p, y)$ be the consumer's demand for good i. The income elasticity of demand for good i is defined as $ei = \frac{y}{X_i} \frac{dx^i(py)}{dy}$

Show that, if all income elasticity is constant and equal, they must be equal to one.

QUESTION 5:

A firm has a cost function of the form

$C(y,w_1,w_2) = y^2 w_1^{a}, w_2^{b}$

a. What is b equals to?

b. What are the marginal cost and average cost?

c. What is the short-run supply curve of the firm?

QUESTION 6

A monopolistic with cost function $c(y) = y^2+1$ faces an inverse demand curve $PD(y) = 20-y$

(a) What levels of price and output will result?
(b) What are the monopolist's profits?
(c) If the the monopolist for some reasons behaved as a competitor, what would the equilibrium price, quantity and profits be?