



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF ARTS ECONOMICS WITH INFORMATION
TECHNOLOGY**

MAIN CAMPUS

AEC 301: ADVANCED MICROECONOMICS

Date: 12th January, 2016

Time: 2.30 - 4.30pm

INSTRUCTIONS:

- Answer Question ONE and any other TWO Questions.

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ISO 9001:2008 CERTIFIED



Q1. a) Explain the following axioms of preference ordering in consumer theory.
Use diagrams where necessary.

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- i) Differentiability [3 Marks]
- ii) Strict convexity [3 Marks]
- iii) Non-satiation [3 Marks]

b) A rule or function $u(x)$ which assigns a real number u to each bundle x is said to *represent* the consumer's preferences if all bundles in the same indifference set have the same number and bundles in preferred indifference sets have higher numbers, i.e.

i) $u(x') = u(x'')$ if and only if $x' \sim x''$

ii) $u(x') > u(x'')$ if and only if $x' \succ x''$

Any function that satisfies these simple requirements is a utility function for the consumer. Explain. [10 Marks]

c) Characterize the properties of marginal utility. [4 Marks]

d) Kamau consumption decision is dependent in the structure of the utility which is maximized subject to income constraint. Discuss.

[7 Marks]

Q2. a) Explain the fundamental properties of a production function. [8 Marks]

b) Considering the long run cost minimization problem

$$\min_{z_1, \dots, z_n} \sum p_i z_i \quad \text{s.t. i) } f(z_1, \dots, z_n) \geq y$$

$$\text{ii) } z_i \geq 0 \quad i = 1, \dots, n$$

show that i) $\frac{p_i}{p_j} = \frac{f_i}{f_j} \quad j = 1, \dots, n, \quad j \neq i$

[12 Marks]

Q3. a) Characterize a long run supply function in the context long run profit maximization. [10 Marks]

b) Discuss monopsonic demand for inputs. [10 Marks]

Q4. a) Describe a Walrasian equilibrium of a competitive economy.

[10 Marks]

b) Discuss the Edgeworth Box and Pareto efficient resource allocation

[12 Marks]

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[10 Marks]

Q5. a) Describe the causes of market failure.

[4 Marks]

b) Given the following manifestation of market failure explain how government reacts to solve the problems.

i) Monopoly

[5 Marks]

ii) Externality

[5 Marks]

iii) Public goods

[6 Marks]