

# 2<sup>nd</sup> SEM. 2010/2011

## **UNIVERSITY OF SWAZILAND**

#### SUPPLEMENTARY EXAMINATION PAPER

### PROGRAMME:

BSc. in Agricultural and Biosystems Engineering Yr 1

**BSc. in Agricultural Economics and Agribusiness** 

Management Yr 1

BSc. in Agricultural Education Yr 1

BSc. in Agronomy Yr 1
BSc. in Animal Science Yr 1

BSc. in Consumer Sciences Yr 1

**BSc. in Consumer Science Education Yr 1** 

BSc. in Food Science, Nutrition and Technology Yr 1

BSc. in Horticulture Yr 1

BSc. in Textiles Apparel Design and Management Yr 1

COURSE CODE: AEM 103

TITLE OF PAPER: PRINCIPLES OF ECONOMICS

TIME ALLOWED: TWO (2) HOURS

**INSTRUCTIONS: 1. ANSWER ALL QUESTIONS** 

2. EACH QUESTION CARRIES 25 MARKS

3. SHOW ALL YOUR WORKING 4. EXPLAIN YOUR GRAPHS

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#### **Question 1**

- a) Compare and contrast the following terms as used in economics.
- (i) Complementary and Substitute goods
- (ii) Demand and Supply
- (iii) Fixed and Variable Inputs
- (iv) Oligopoly and Pure Monopoly
- (v) Microeconomics and Macroeconomics

(15 marks)

b)			•	
•	Price	Quantity	.? (1 mark)	
	1.00	100,000		
	0.50	300,000		
	0.25	600,000		
	0.10	1,000,000		

Calculate the arc elasticities of demand and explain what these values mean. (9 marks)

#### **Question 2**

- a) With the help of a well labelled diagram, show three points that represent same satisfaction but different expenditures (10 marks)
- b) Discuss three factors which influence the demand of maize in Swaziland (9 marks)
- c) With the aid of well labelled diagrams, show the relationship between Marginal cost and Average cost (6 marks)

#### **Question 3**

a) Prove that Marginal cost is equal to price of commodity divided by the marginal product i.e.  $MC = P_x(1/MP)$ 

(5 marks)

b) Two firms are identical in every way except one. The first entrepreneur rents the premises on which his business operates while the second uses her own building. Whose costs are higher? Explain your answer.

(5 marks)

c) With the help of a well labelled graph, show the three stages of production (12 marks)

d) What is marginal product and how is it calculated?

(3 marks)

### **Question 4**

a) Using the data from the data below, calculate;

INPUT			3	•	5
OUTPUT	0	10	20	30	40
TOTAL COST	100	164	258	290	360

# Calculate the following:

i) total fixed cost and explain what is meant by total fixed cost

(3 marks)

ii) total variable cost when output is 20

(2 marks)

- iii) What is meant by marginal cost (MC), calculate MC (at ALL output levels) (8 marks)
- iv) Calculate average variable cost at input level 5 (2 marks)
- b) With the help of a well labelled graph, show what is meant by a market that is in equilibrium. (10 marks)