



**2<sup>nd</sup> SEM. 2012/2013**

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**UNIVERSITY OF SWAZILAND**

**SUPPLEMENTARY EXAMINATION PAPER**

**PROGRAMME:** BSc. in Agricultural & Biosystems Engineering Year 1  
BSc. in Agric. Economics and Agribusiness Management Year 1  
BSc. in Agricultural Education Year 1  
BSc. in Agronomy Year 1  
BSc. in Animal Science Year 1  
BSc. in Animal Science (Dairy) Year 1  
BSc. in Consumer Science Year 1  
BSc. in Consumer Science Education Year 1  
BSc. in Food Science, Nutrition & Technology Year 1  
BSc. in Horticulture Year 1  
BSc. in Textile & Apparel Design & Management Year 1

**COURSE CODE:** AEM 103

**TITLE OF PAPER:** PRINCIPLES OF ECONOMICS

**TIME ALLOWED:** TWO (2) HOURS

**INSTRUCTION:** 1. ANSWER ALL QUESTIONS  
2. EACH QUESTION CARRIES TWENTY FIVE (25) MARKS

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THE CHIEF INVIGILATOR**

**Question 1**

1.1 Which of the following involves a change in quantity demanded and which involve a change in demand? In either case state the direction of the change and illustrate by a relevant diagram. What type of factor is involved in each case? How the products are (where applicable) related? (12 marks)

- (a) Falling incomes force people to postpone buying new household furniture.
- (b) The price of synthetic fiber rise and in turn the clothing firms look for cotton.
- (c) The price of feed grains increases and farmers feed their livestock soybeans instead.
- (d) The price of cowpeas falls and the consumption of cowpeas increases per year.

1.2 The demand curve tells us what quantities would be demanded at any given price, if other things do not change over a given period of time. Now suppose you are given the following data:

<b>Quantity demanded:</b>	<b>20</b>	<b>40</b>	<b>60</b>	<b>80</b>	<b>100</b>
<b>Price</b>	<b>50</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>10</b>

Calculate the elasticity coefficients along D1 when price decreases from 50 to 30 and from 30 to 10 and comment on what you observe. (6 marks)

1.3 Which stage of production is characterized by decreasing average product and decreasing marginal product of the variable input? (3 marks)

- a. Stage I      b. Stage II      c. Stage III

1.4 What is an equilibrium price and equilibrium quantity? (4 marks)

**Question 2**

2.1 Briefly describe the following terms:

- a. Price discrimination (3 marks)
- b. Normal goods (2 marks)
- c. Opportunity cost (3 marks)
- d. Scarcity? (3 marks)

2.3 List the conditions necessary for pure competition to exist? (5 marks)

2.4 Briefly explain the law of diminishing marginal utility and give an example. (5 marks)

2.5 Use a graph to illustrate a production function showing decreasing returns. (4 marks)

### Question 3

3.1 Explain what the marginal rate of substitution (MRS) is and give an example. (4 marks)

3.2 Fill in the following table (7 marks)

Number of glasses	Total utility	Marginal utility
0	0	
1	6	
2	11	
3	15	
4	18	
5	20	
6	21	
7	21	

3.3 Differentiate between fixed costs and variable costs. (2 marks)

3.4 Briefly describe the oligopolistic market classification. (5 marks)

3.5 Mrs. Green farm initially bakes 5 wedding cakes at an average total cost of E2, 000 per cake. She then increased the number of cakes to 6 cakes and the production of the additional cake reduced the average total cost to E1, 975. Calculate the marginal cost of the additional cake. (7 marks)

**Question 4**

4.1 A fall in the price of cabbage from E10.50 to E9.50 per bag increases the quantity demanded from 18,800 to 21,200 bags. Calculate the price elasticity of demand. (5 marks)

4.2 The table below gives the supply schedule for jeans.

<b>Quantity supplied (pairs per year):</b>	<b>240</b>	<b>280</b>	<b>320</b>	<b>360</b>
<b>Price (E/makingen per pair):</b>	<b>120</b>	<b>125</b>	<b>130</b>	<b>135</b>

Calculate the elasticity of supply when; the price decreases from E130 to E125 a pair. (5 marks)

4.3 What is an indifference curve? Use a diagram to support your answer. (5 marks)

4.4 The table below depicts the total utility or satisfaction gained by an individual from the consumption of three commodities.

<b>TOTAL UTILITY</b>			
<b>Units consumed</b>	<b>Custard</b>	<b>Jelly</b>	<b>Yoghurt</b>
1	10	7	9
2	18	14	16
3	25	21	21
4	30	28	23
5	32	35	22

Which of the goods are subject to diminishing marginal returns? (4 marks)

- (a) Yoghurt only    (b) Custard and yoghurt    (c) Custard and jelly    (d) Custard, jelly and yogurt.

4.5 If the price elasticity is between 0 and 1, demand is (1 marks)  
 a. Elastic                      b. Inelastic                      c. Unit elastic

4.6 Explain why the price elasticity of supply is usually positive. (3 marks)

4.7 Which would cause the supply curve of wheat to shift to the right? (2 marks)  
 a. A subsidy given to wheat growers  
 b. A rise in income