

**UNIVERSITY OF SWAZILAND  
FACULTY OF SOCIAL SCIENCE  
DEPARTMENT OF ECONOMICS**

**MAIN EXAMINATION PAPER: DECEMBER, 2016**

**TITLE OF PAPER: ECONOMICS OF AGRICULTURE  
COURSE CODE: ECON 410  
TIME ALLOWED: TWO (2) HOURS**

**INSTRUCTIONS:**

1. Answer Question **ONE** and any other **TWO** questions.
2. Show all relevant workings to your answer
3. All Questions carry a total of 25 marks

**SPECIAL REQUIREMENTS: SCIENTIFIC CALCULATOR**

**DO NOT OPEN THIS QUESTION PAPER UNTIL INSTRUCTED TO DO SO BY  
THE INVIGILATOR.**

### Question1 (Compulsory)

- a) Explain the subject matter of agricultural economics [5 marks]
- b) What are the main goals of production economics [10 marks]
- c) What is the importance of the elasticity of substitution in agricultural production economics [5 marks]
- d) What information is required for the determination of optimum output combinations in a production function? [5 marks]

**Answer any two (2) questions from the following**

### Question 2

- a) Distinguish between the following efficiency concepts.
  - (i) Technical efficiency
  - (ii) Allocative efficiency
  - (iii) Economic efficiency [9 marks]
- b) Use the following Cobb- Douglas production function for **NAMBOARD** and the associated price information to derive the demand functions (optimal amounts) for the **TWO** inputs labour and fertilizer. Production function:  $Y = x_1^{1/5} x_2^{3/5}$ , where Y= **NAMBOARD's** output in tonnes,  $x_1$ = labour input in person days and  $x_2$  = fertilizer use in kilograms. The unit prices are as follows:  $P_y = E10$ ,  $P_{x1} = E3$ , and  $P_{x2} = E1$ . [16 marks]

### Question 3

The technological, economic, institutional and policy causes of poor performance of the agricultural sector in Sub-Saharan Africa have been pointed out in recent literature. Briefly critique these causes specifically focussing on the Swaziland case. [25 marks]

### Question 4

- a) What is a production function and explain its significance in agricultural production economics.(hint: explanation in terms of the three regions) [10 marks]
- b) Discuss areas in which the Swaziland government could intervene in order to promote agricultural performance in the country [10 marks]
- c) What has been the setback to agricultural growth in Swaziland in the recent past. [5 marks]

**Question 5**

- a) Why is technological change in agriculture important for continued industrial growth in the labor surplus dual economy model as discussed by Lewis? [12 marks]
- b) What are the benefits of entrepreneurial empowerment in agriculture? [13 marks]