

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

MAIN EXAMINATION PAPER: DECEMBER, 2018

TITLE OF PAPER: ECONOMICS OF AGRICULTURE
COURSE CODE: ECON 407/ECON 410
TIME ALLOWED: THREE (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

Question1 (Compulsory)

- a) Explain the subject matter of agricultural economics [5 marks]
- b) Explain the main features of the Lewis's model of Economic Development. [10 marks]
- c) Explain the justification that labour could be withdrawn continuously from the agricultural sector without a decline in agricultural production as implied in the Lewis model [5 marks]
- d) What are the main criticisms of the Lewis model with respect to economic development? [5 marks]
- e) Given the following Cobb- Douglas production function for **NAMBOARD** for the **TWO** inputs labour (X_1), and fertilizer (X_2).

$$Y = X_1^{1/2} X_2^{1/4}$$

- (i) Formulate NAMBOARD's profit maximization problem algebraically. [3 marks]
- (ii) At what point will the company maximize profits? Explain. [5 marks]
- (iii) Derive the equation for the expansion path for the two variable production function above. [5 marks]
- (iv) Suppose that both input prices are E1 and $P_y = E5$. How much of each input should be used to maximize profits? [12 marks]

Answer any two (2) questions from the following

Question2

- a) What is the importance of the elasticity of substitution in agricultural production economics? [5 marks]
- b) What information is required for the determination of optimum output combinations in a production function? [5 marks]
- c) What would you consider to be the main factors hindering the growth of the agricultural sector in the Kingdom of Eswatini? [15 marks]

Question 3

- a) Distinguish between the following efficiency concepts.
 - (i) Technical efficiency
 - (ii) Allocative efficiency
 - (iii) Economic efficiency [9 marks]

- b) The Sub-Saharan region has shown sluggish growth in agricultural exports. What factors would you consider responsible for the poor agricultural export development in the region?
[16 marks]

Question 4

- a) What is the difference between risk and uncertainty in agriculture? [4 marks]
- b) Discuss the different types of attitudes towards risk that may be exhibited by a typical farmer in agriculture. [9 marks]
- c) Suggest any three types of risks and ways that farmers could apply to deal with these types of risk. [12 marks]