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

## FINAL EXAMINATION PAPER: MAY 2012

TITLE OF PAPER: AGRICULTURAL ECONOMICS
COURSE CODE: ECON 411
TIME ALLOWED: THREE (3) HOURS

## INSTRUCTIONS:

1. Answer Four (4) Questions, Two from Section A and Two from Section B.
2. All Questions Carry Equal Marks of 25 each in total.

## DO NOT OPEN THIS QUESTION PAPER UNTIL THE INVIGILATOR HAS GRANTED PERMISSION.

# SECTION A

## Question 1
a) Given the following production function

$$a = x^{2/5} y^{2/5}$$

where x and y represent the quantities used respectively of input x and input y per time period., and $a$ represents the maximum quantity of output of product $A$ obtainable from these quantities of inputs:

let price of $X(P_x) = E4$ per unit

price of $Y(P_y) = E8$ per unit

price of $A(P_a) = E20$ per unit

i) what kind of function is the production function given above?   [1 mark]

ii) what are the values of $x$ and $y$ that will maximize profits and what would be the value of output at maximum profit?                    [12 marks]

b) Explain the following efficiency concepts
   i.   technical efficiency
   ii.  allocative efficiency
   iii. economic efficiency                    [4marks each]

## Question 2
a) What is the role of the state in agricultural development?        [15 marks]
b) Explain what is meant by the term *classical production function* in agricultural production economics                    [3 marks]
c) Draw a classical production function clearly delineating the different stages of production. Identify and explain the features of the ideal stage of production.                    [7 marks]

## Question 3
a) Define what is meant by the term "agricultural economics"?   [3 marks]
b) Mention and discuss the basic points justifying the importance of the agricultural sector.                    [15 marks]
c) What is the link between agricultural growth and industrial growth?
                    [7 marks]

## Question 4

a) What is the objective of using price policies in the agricultural sector?
                    [3 marks]
b) Discuss the major components of price policy.        [7 marks]
c) Why would government be interested in adjusting prices for farmers?
                    [15 marks]

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# SECTION B

## Question 5
    a) Explain the different sources of risk in the agricultural sector in Sub Saharan Africa. [10 marks]

    b) Describe the mechanisms a risk-averse agricultural household may employ to deal with risk. [15 marks]

## Question 6
    a) Explain fully five reasons to involve women in agriculture [10 marks]

    b) What mechanisms can the government adopt to strengthen women's contribution to agricultural production and sustainability? [15 marks]

## Question7

    a) What are the basic features of household decision making models?

         [7marks]

    b) Discuss the basic elements of the Chaynov household model. Show how the allocation of time between work and leisure is derived. [18 marks]

## Question 8

    a) Give the rationale for government's intervention in the agricultural sector in developing economies? [10 marks]

    b) Discuss the possible policy options that governments in developing countries can pursue to uplift the agricultural sector. [15 marks]