



UNIVERSITY OF ESWATINI

FIRST SEMESTER MAIN EXAMINATION PAPER, DECEMBER, 2020

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

COURSE CODE: ECO407/ECON410

TITLE OF PAPER: ECONOMICS OF AGRICULTURE

TIME ALLOWED: 2 HOURS

Instructions

1. This paper consists of Section (A) and (B).
2. Section A is compulsory.
3. Answer any two questions from Section B.

Special Requirements

Scientific calculator

Additional Material (s): None

Candidates may complete the front cover of their answer book when instructed by the Chief Invigilator and sign their examination attendance cards but must NOT write anything else until the start of the examination period is announced.

No electronic devices capable of storing and retrieving text, including electronic dictionaries and any form of foreign material may be used while in the examination room.

DO NOT turn examination paper over until instructed to do so.

SECTION A

Question 1 : This Question is Compulsory

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?
[2 marks]
 - ii. why is the above function so widely used to define agricultural production?
[3 marks]
- ii) what are the values of x and y that will maximize profits and what would be the value of output at maximum profit?
[15 marks]

b) Explain the following efficiency concepts

- i. technical efficiency
- ii. allocative efficiency
- iii. economic efficiency
- iv. elasticity of production
- v. diminishing marginal rate of substitution [3marks each]

c) What are the major constraints to Agricultural development in Sub-Saharan Africa (SSA)?
[15 marks]

SECTION B

Answer any two questions from this section

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) Outline the dualism that is evident in Swaziland's agriculture. What distinguishes the two approaches to agricultural production? [10marks]
- b) Discuss the major problems facing agricultural development in Swaziland. [15 marks]

Question 4

- 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]