UNIVERSITY OF SWAZILAND DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND PLANNING FINAL EXAMINATION, DECEMBER 2017

B. Sc.; B.Ed

TITLE OF PAPER: AGRICULTURAL SYSTEMS

COURSE NUMBER: GEP315 / 326

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TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS: 1. ANSWER FOUR (4) QUESTIONS 2. CHOOSE TWO (2) FROM EACH SECTION 3. ILLUSTRATE YOUR ANSWERS WITH EXAMPLES AND CLEARLY DRAWN DIAGRAMS WHERE APPROPRIATE

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ALLOCATION OF MARKS: EACH QUESTION CARRIES 25 MARKS : TOTAL MARKS FOR THE PAPER 100

THIS QUESTION PAPER SHOULD NOT BE OPENED UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR

GEP315: AGRICULTURAL SYSTEMS – DECEMBER 2017

SECTION A: ANSWER ANY TWO (2) QUESTIONS.

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QUESTION 1

With reference to countries in sub-Saharan Africa, compare and contrast the economic behaviour of commercial and subsistence farmers. (25 Marks)

QUESTION 2

Using examples, explain why it is not easy to test von Thunen's Theory in Africa.

(25 Marks)

QUESTION 3

Explain the operational and structural attributes of types of agriculture.

(25 Marks)

SECTION B: ANSWER ANY TWO (2) QUESTIONS

QUESTION 4

Using examples, explain how alkaline soil levels can be lowered.

(25 Marks)

QUESTION 5

Discuss the factors that may limit crop development and reduce evapo-transpiration.

(25 Marks)

QUESTION 6

- a) Using examples, explain how the loss of water through evaporation in a young orchard can be reduced. (15 marks)
- b) Explain how potential evapo-transpiration is estimated. (10 marks) (25 Marks)