

**UNIVERSITY OF SWAZILAND**  
**DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND PLANNING**  
**FINAL EXAMINATION, DECEMBER 2016**  
**B. Sc., B.Ed**

**TITLE OF PAPER:            AGRICULTURAL SYSTEMS**

**COURSE NUMBER:        GEP326**

**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**

**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**

**GEP326: AGRICULTURAL SYSTEMS – DECEMBER 2016**

**SECTION A: ANSWER ANY TWO (2) QUESTIONS**

**QUESTION 1**

With reference to countries in Sub-Saharan Africa, explain why it is important for government to intervene in agricultural production. **(25 Marks)**

**QUESTION 2**

- a) Using examples, distinguish between seed agriculture and vegeculture. **(15 marks)**
  - b) Explain how a farmer can modify variables that influence plant growth and development. **(10 marks)**
- (25 Marks)**

**QUESTION 3**

Discuss the factors influencing variations in susceptibility of soils to erosion. **(25 Marks)**

**SECTION B: ANSWER ANY TWO (2) QUESTIONS**

**QUESTION 4**

Using examples, explain how applying lime improves soil quality in acidic soils. **(25 Marks)**

**QUESTION 5**

Identify and explain the principal weather parameters affecting evaporation. **(25 Marks)**

**QUESTION 6**

Discuss four experimental techniques designed to modify weather. **(25 Marks)**