



*(Knowledge for Development)*

**KIBABII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**  
**2019/2020 ACADEMIC YEAR**

**SECOND YEAR 2ND SEMESTER**  
**MAIN EXAMINATIONS**

**FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE**  
**EDUCATION AND EXTENSION**

**COURSE CODE:** ACR 222 / SAB 234 / SAB 236.  
**COURSE TITLE:** ANNUAL CROPS

**DATE:** 15/02/2021.

**TIME:** 8-10 AM.

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**INSTRUCTIONS TO CANDIDATES**

Answer Question ONE and any other TWO Questions.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over 

KIBU observes ZERO tolerance to examination cheating

1. (a) Explain why a farmer is advised to observe the recommended spacing for a particular crop (5 marks)
- (b) Justify the diversified production of maize hybrids in Kenya (5 marks)
- (c) A Millet farmer was advised to purchase NPK 12:30:17 fertilizer and apply Phosphate at 55 kg  $P_2O_5$  per ha at planting.
  - (i) How much fertilizer did he purchase in 50 kg bags? (5 marks)
  - (ii) How much Nitrogen (N), Phosphorus (P) and Potassium (K) was applied per acre? (5 marks)
- (d) Research has shown that a farmer who plants his maize crop up to two weeks after onset of the rains may experience yield loss to the tune of 2.5 bags/acre/week. Explain (3 marks)
- (e) Give the center of origin for the following crops: Sweet potato, Maize, Irish potato (3 marks)
- (f) Describe one main beetle pest of storage in grain legumes (4 marks)
2. Exhaustively discuss the cropping systems in annual crops production stating the advantages and disadvantages in each case (20 marks)
3. Explain in detail the botanical, economic and special purpose classification of crops (20 marks)
4. Explain the 'push-pull' strategy in management of stem and shoot borers in Maize (*Zea mays*) (20 marks)
5. One of the main causes of food insufficiency in Kenya and the East Africa region is the high prevalence of storage pests. Give the storage pests of economic importance and exhaustively discuss their control (20 marks)