



**KISII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**

**THIRD YEAR EXAMINATION FOR THE AWARD OF THE DEGREE**  
**OF BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION**

**FIRST SEMESTER 2022/2023**  
**(SEPTEMBER - DECEMBER, 2022)**

**AGRO 102: PRINCIPLES OF CROP PRODUCTION**

**STREAM: Y3 S1**

**TIME: 2 HOURS**

**DAY: THURSDAY, 9:00A.M – 11:00 A.M**

**DATE: 01/12/2022**

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**INSTRUCTIONS:**

- 1. Do not write anything on this question paper.**
- 2. Answer ALL Questions in section A (Compulsory) and any other TWO Questions in section B.**

**SECTION A (40 Marks)**

- In each country there is an agency responsible for overseeing and supervising the quality of seeds.
  - What are the activities of a national seed service agency? (5 marks)
  - What factors affect quality of seed? (5 marks)
- What you understand by the following classes of seed? (10 marks)
  - Breeder seeds
  - Foundation seeds
  - Registered seeds
  - Certified seed
- What is the difference between the following?
  - Monoculture and sole cropping (5 marks)
  - Mixed cropping and intercropping (5 marks)
- How do you evaluate yield from intercropping system? (10 marks)

**SECTION B (30 marks)**

5. What are the principles of effective utilization of the following fertilizers?  
(15 marks)
- a) Nitrogen
  - b) Phosphorus
  - c) Potassium
6. Frequent tillage operations in crop production are considered inappropriate. What is live mulch? Why it is not practiced widely in smallholder farming?  
(15 marks)
7. Briefly explain what you understand by integrated management in the following:  
(15 marks)
- a) Weeds
  - b) Pests and
  - c) Disease