



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

FIRST 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: Y1 S1

TIME: 2 HOURS

DAY: THURSDAY, 9:00 A.M – 11:00 A.M

DATE: 01/12/2022

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)

1. List and describe factors affecting crop production. (10 marks)
2. What factors influence water requirements of plants, explain each briefly (10 marks)
3. Why does the economics of fertilizer use directly relate to adequacy of soil water? (10 marks)
4. Explain what you understand by the following terms. (10 marks)
 - a) Live mulch
 - b) Minimum tillage

SECTION B (30 MARKS)

4 Why would plant breeders be interested in development of crop varieties with leaves that will grow at such an angle as to make possible increased use of solar energy? (15 marks)

5. There is noticeable variation in the behaviour of soil water at different film thickness, or degrees of wetness. Describe four forms of soil water that are recognized on that basis. (15 marks)

6. It has been observed that, there is decrease of water intake by bare soils when rain continued to fall on its surface. What would be the reason for the occurrence and how would the situation be changed? (15 marks)