

**UNIVERSITY OF KABIANGA**  
**UNIVERSITY EXAMINATIONS THIRD YEAR FIRST SEMESTER EXAMINATIONS**  
**2016/2017 ACADEMIC YEAR**

**AGR 141: PRINCIPLES OF CROP PRODUCTION**  
**INSTRUCTIONS TO CANDIDATES**

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**SECTION A: ANSWER ALL QUESTIONS (30 Marks)**

- Q1. Differentiate between “Tropical Alpine zones” and “Upper highland zones” (6 Marks)
- Q2. Explain the advantages of zero-tillage system. (6 Marks)
- Q3. Explain the following:
- (a) The unfavorable human activities that affect crop production. (3 Marks)
  - (b) The three basic methods of establishing crops in field situations. (3 Marks)
- Q4. Describe the “biological weed control methods. (6 Marks)
- Q5. (a) Define the term “crop ecology”. (1 Mark)
- (b) Explain the difficulties faced by European settlers in Kenya in relation to agriculture development in the years’ from 1923-1960. (5 Marks)
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**SECTION B: CHOOSE ANY TWO QUESTIONS (40 Marks)**

- Q6. (a) Explain the mandate of Kenya Plant Health Inspectorate Service. (8 Marks)
- (b) Discuss the poly-cropping system of crop production. (12 Marks)
- Q7. (a) As an agricultural officer in Kenya, explain to mixed crop farmers in your country the following:
- (i) The importance of proper land preparation. (2 Marks)
  - (ii) How market prices and marketing facilities affect crop production. (3 Marks)
- (b) Discuss the effect of light on the growth and development of plants. (15 Marks)
- Q8. (a) Explain the following:
- (i) The mandate of Agriculture, Fisheries and Food Authority. (AFF) (4 Marks)

(ii) The effect of the atmosphere on the growth and development of crops.

**(5 Marks)**

(iii) Side effects of chemical pest control method.

**(5 Marks)**

(iv) Discuss “the good fertilizer application practice” in crop production. **(6 Marks)**

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