

2910/301  
CROP ENTERPRISE MANAGEMENT III  
Oct./Nov. 2022  
Time: 3 hours



**THE KENYA NATIONAL EXAMINATIONS COUNCIL**  
**DIPLOMA IN SUSTAINABLE AGRICULTURE**  
**AND RURAL DEVELOPMENT**

**MODULE III**

**CROP ENTERPRISE MANAGEMENT III**

**3 hours**

**INSTRUCTIONS TO CANDIDATES**

*This paper consists of EIGHT questions.  
Answer any FIVE questions in the answer booklet provided.  
All questions carry equal marks.  
Maximum marks for each part of a question are indicated.  
Candidates should answer the questions in English.*

**This paper consists of 3 printed pages.**

**Candidates should check the question paper to ascertain that  
all the pages are printed as indicated and that no questions are missing.**

- 1. (a) Outline the practice of wedge grafting in avocados when provided with appropriate scion, rootstock and tools. (8 marks)
- (b) Describe the establishment of a nursery bed for cabbages in the highlands. (12 marks)
- e 2. (a) Citing the commercial objective of each, explain the following post-harvest practices in fruits:
- (i) degreening; (10 marks)
- (ii) waxing. (10 marks)
- (b) Describe the planting of French beans intended for export. (10 marks)
3. (a) Describe each of the following practices in the establishment of mango rootstock:
- (i) seed selection; (10 marks)
- (ii) seed preparation. (10 marks)
- (b) Describe the pruning practices in banana production. (10 marks)
4. (a) Explain five advantages of hydroponics in vegetable production. (10 marks)
- (b) Explain five ways of controlling ethylene damage in horticultural produce. (10 marks)
- 5. (a) Describe traceability in horticulture with respect to:
- (i) meaning; (4 marks)
- (ii) importance. (4 marks)
- (b) Highlight four desirable characteristics of neem for use as a pesticide. (4 marks)
- (c) Describe the training of passion fruit plants. *Arbore, in Arbores* (12 marks)
6. (a) Outline the physiological developmental stages in a fruit crop after germination. (4 marks)
- (b) Explain disbudding in carnation under the following:
- (i) meaning;
- (ii) objective; (8 marks)
- (iii) procedure. (8 marks)
- (c) Describe land preparation in rose flower production. (8 marks)



7. (a) Explain the reason why avocados will ripen if picked unripe unlike citrus fruits. (4 marks)
- (b) Outline the propagation of *Aloe vera* using a leaf. (8 marks)
- (c) Describe the harvesting of African nightshade for use as a vegetable. (8 marks)
8. (a) Describe fruit thinning in apple production. (4 marks)
- (b) Describe blanching of celery in the field under the following:
- (i) objective;
  - (ii) method. (8 marks)
- (c) Explain two negative effects of applying fresh manure in onion production. (4 marks)
- (d) State four symptoms of powdery mildew in capsicum production. (4 marks)

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