

2425/301
CROP PRODUCTION III
June/July 2019
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN AGRICULTURE

MODULE III

CROP PRODUCTION 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) Highlight five disadvantages of parboiling rice. (5 marks)
- (b) State any five factors that influence producer prices of cut flowers. (5 marks)
- (c) Explain five types of post-harvest losses that occur in cereals. (10 marks)
2. (a) Describe powdery mildew in cut flowers with respect to:
- (i) causal organism;
 - (ii) symptoms;
 - (iii) predisposing factors;
 - (iv) control. (10 marks)
- (b) Explain the pre-harvest factors that affect the quality of cut flowers. (10 marks)
3. (a) Explain each of the following post-harvest practices in avocado production:
- (i) hot water treatment;
 - (ii) treatment with calcium;
 - (iii) waxing. (10 marks)
- (b) Explain the advantages of using budlings in citrus propagation. (10 marks)
4. Explain the European Union requirements on fresh produce during:
- (a) harvesting; (5 marks)
 - (b) post-harvest handling; (12 marks)
 - (c) transportation. (3 marks)
5. (a) Describe the field management practices in strawberry production. (16 marks)
- (b) Explain why pressure canning is preferred to water bath canning in vegetables. (4 marks)
6. (a) (i) Differentiate between determinate and indeterminate tomato varieties. (2 marks)
- (ii) Explain the preference of indeterminate varieties for green house cultivation. (3 marks)

(b) Describe tomato production in a greenhouse with respect to:

- (i) land preparation;
- (ii) transplanting.

(15 marks)

7. Describe carrot production with respect to:

(a) ecological requirements;

(8 marks)

(b) planting;

(7 marks)

(c) manure and fertilizer application.

(5 marks)

8. (a) (i) Define the term 'produce traceability'.

(ii) Explain the importance of produce traceability.

(13 marks)

(b) Highlight the details contained in a vegetable spraying programme.

(7 marks)

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