

CHUKA

UNIVERSITY



UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF  
SCIENCE IN HORTICULTURE

HORT 341: TROPICAL FRUITS

STREAMS: BSc. HORT (PART/TIME)

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 09/04/2025

2.30 P.M. – 4.30 P.M.

**INSTRUCTIONS**

- Answer ALL Questions in Section A and any TWO Questions in Section B.
- Do not write on the question paper

**SECTION A: [30 MARKS] - ANSWER ALL QUESTIONS**

**Question one**

- a) With appropriate illustrations, explain the **Quincunx** design method of orchard layout establishment (3 marks)
- b) Describe Open-Centre training System of fruit trees (4 marks)

**Question two**

- (a) Describe following terms used in fruit production (4 marks)
  - i. Thinning out
  - ii. Heading back
  - iii. Training
  - iv. Ringing
- (b) Briefly explain some of the special operations carried out during banana production. (6 marks)
- (c) Briefly explain the classification of fruit based on fruit morphology (6 marks)

**Question Three**

- a) Quality retention is a major consideration in modern fresh fruit marketing system. Briefly explain the benefits of using wax in fruits (5 marks)
- b) Describe briefly the possible causes of seed lessness in fruit trees (2 marks)

**SECTION B: [40 MARKS] - ANSWER ANY TWO QUESTIONS**

**Question four**

- (a) Discuss Banana under the following (12 marks)
  - i. Ecological requirements
  - ii. Varieties
  - iii. Major pests and their control
- (b) Discuss the challenges faced by fruit growers in Kenya (8 marks)

**Question five**

- (a) Biennial/alternate bearing in mangoes is of concern to fruit growers. Discuss the causes and possible control measures for it (10 marks)
- (b) Classification of fruits based on climate adaptability is categorized into three recognized groups. Discuss (10 marks)

**Question Six**

- (a) Discuss the indicators/indices that are used to determine maturity of fruits (8 marks)
  - (b) Discuss paw paw production in Kenya under the following categories (12 marks)
    - i. Tree types
    - ii. Harvesting and post -harvest handling
    - iii. Papaya Mosaic virus
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