

CHUKA



UNIVERSITY

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

HORT 111: PRINCIPLES AND PRACTICES OF HORTICULTURE

STREAMS: BSc. HORT (PART/TIME)

TIME: 2 HOURS

DAY/DATE: FRIDAY 08/08/2025

8.30 A.M. – 10.30 A.M.

INSTRUCTIONS:

- Answer All Questions in Section A (30 marks) and any Two in Section B (40 Marks)

Section A – Answer All Questions (30 marks)

Question One

- Define the following terms in Horticulture.
 - Viticulture (1 mark)
 - Cold frames (1 mark)
 - Deadheading (1 mark)
- Using examples, distinguish between physiological maturity and horticultural maturity. (4 marks)
- State three functions of auxins in horticultural crops as plant growth regulators. (3 marks)

Question Two

- Briefly explain four characteristics of horticultural crops. (4 marks)
- Describe three types of pruning systems in horticultural crops. (6 marks)

Question Three

- List three major macronutrients required by horticultural crops and explain their functions. (3 marks)

- b) Enumerate four environmental factors affecting horticultural production. **(4 marks)**
- c) Explain how intercropping fruit trees with legumes can contribute to sustainable horticultural production. **(3 marks)**

Section B – Answer Any Two Questions (40 Marks)

Question Four

- a) Describe any four artificial methods of asexual reproduction in horticulture. **(8 marks)**
- b) Giving examples, discuss the main training systems of horticultural crops. **(12 marks)**

Question Five

- a) Briefly explain five characteristics of a good rooting media. **(5 marks)**
- b) Identify two major pests and two major diseases affecting a horticultural crop of your choice and for each, state one management strategy. **(5 marks)**
- c) Illustrate and explain five orchard layout systems. **(10 marks)**

Question Six

- a) Describe the common post-harvest handling steps, giving one example of how each is applied in either fruits or vegetables. **(5 marks)**
 - b) Describe the role of horticulture in Kenya. **(5 marks)**
 - c) Discuss five functions of a greenhouse. **(10 marks)**
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