

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

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

HORT 831: ADVANCES IN VEGETABLE CROPS

STREAMS: MSC HORT Y1S1

TIME: 3 HOURS

**DAY/DATE: WEDNESDAY 07/04/2021
P.M.**

2.30 P.M. – 5.30

INSTRUCTIONS:

- The paper contains section A and B
- Answer all questions in section A and any two from section B
- Marks for each question are indicated in parenthesis ()
- Total marks = 60

SECTION A: TOTAL MARKS (20) (ANSWER ALL QUESTIONS)

QUESTION ONE

(a) Explain the terms consumptive use of water (CUW) and heat degree days. What is their importance in vegetable crops production?

(5 marks)

(b) What are the roles played by gibberellin acid, abscisic acid and cytokinin hormones in the germination of vegetable seed.

(5 marks)

QUESTION TWO

(a) Briefly discuss the adaptive and non-adaptive changes to low light conditions by vegetable crops. (5 marks)

(b) Describe the characteristics that contribute to success in vegetables crops ability to compete for water and nutrients with other crops in an intercrop system. (5 marks)

marks)

SECTION B: TOTAL MARKS (40) (ANSWER TWO QUESTIONS)

QUESTION THREE

There are different ways of classifying vegetable crops that share characteristics. None of these methods of classification satisfy completely the different groups like farmers, consumers and academics. As an academician broadly classify the vegetable crops.
(20 marks)

QUESTION FOUR

Most vegetable products require special treatment between harvesting and marketing to prevent postharvest losses (PHL). Discuss the internal and external factors that could contribute to postharvest losses between harvesting and marketing of vegetables.
(20 marks)

QUESTION FIVE

- (a) Define the term maturity as used in vegetables. (5 marks)
- (b) Explain the various methods that producers and handlers of vegetables use to determine the maturity of vegetable crops. (15 marks)
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