



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE
DEGREE OF BACHELOR OF SCIENCE IN HORTICULTURE WITH
INFORMATION TECHNOLOGY**

MAIN CAMPUS

AHC 309: OLERICULTURE I

Date: 12th June, 2017

Time: 12.00 - 3.00pm

INSTRUCTIONS:

- Answer ALL Questions in section A and any other TWO in section B.



SECTION A (40 MARKS)

Q1. (a) ~~Physiological disorders are often observed in certain vegetable crops.~~

Discuss this as a problem in the production of *Brassica oleracea* var. *botrytis* and *Apium graveolens* (10 marks)

(b) Outline the leafy vegetables contained in the group of cole crops using the International Code of Botanical Nomenclature (ICBN) (5 marks)

Q2. (a) Discuss propagation as an agronomic practice aimed at producing good quality spears in a named stem vegetable (4 marks)

(b) Vegetable crops can either be established directly or indirectly with each method having its unique drawbacks. Outline the determinants of the check in growth of transplanted seedlings (3 marks)

(c) Outline the benefits associated with transplanting as a crop management practice in vegetable production (3 marks)

Q3. (a)Vegetables are important for human nutrition and health. Using specific examples, illustrate the significance of anti-nutritional factors in vegetables

(5 marks)

(b) Describe the harvesting and post-harvest handling procedures for good quality onions

(5 marks)

(c) Crop establishment procedures usually affect the yield and quality of the crop in question. Describe the establishment of carrots with the aspect of quality in mind

(5 marks)

SECTION B (30 MARKS)

Q4. (a) African Indigenous vegetables are steadily gaining popularity in the warmer and humid tropics of Africa. Discuss the value and potential of this group of vegetables and the current constraints to their production

(9 marks)

(b) Describe three main phytopathological challenges in onion production and their management aspects

(6 marks)

Q5. The orderly arrangement of plants into groups based on their similarities and relationships is an important aspect in the study of vegetables. Give a detailed description of the various systems used in this arrangement

(15 marks)

Q6. Vegetable production is one of the fast growing areas within the horticultural industry in Kenya. Describe the production systems that have been employed in this important horticultural area

(15 marks)