



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**FOURTH YEAR FIRST SEMESTER EXAMINATIONS FOR
THE DEGREE OF BACHELOR OF SCIENCE IN
HORTICULTURE WITH INFORMATION TECHNOLOGY**

MAIN CAMPUS

AHC 401: OLERICULTURE II

Date: 1st December, 2016

Time: 8.30 - 11.30 am

INSTRUCTIONS:

- Answer ALL questions in SECTION A and any THREE questions in SECTION B.



AHC 401: OLERICULTURE II

Instructions:

- The paper has two sections (A & B)
- Answer ALL questions in section A and any three (3) in section B
- Number of candidates 55

Section A (40 marks)

Answer ALL questions in this section

Q1.

a) Define the following terms as used in olericulture:

- i) Charged media. (2 marks each)
- ii) Immature green stage of tomato fruit.
- iii) Monoecious flower types of cucumber.

b) Highlight:

- i). Nutritional value of sweet corn. (2 marks)
- ii). The precautions taken to ensure good crop stands for the extra sweet corn varieties. (4 marks)
- iii). The considerations made when choosing corn varieties for growing baby corn. (4 marks)

c) Distinguish between producing baby corn as a primary crop and producing it as a secondary crop. (4 marks)

Q2.

- a) Ordinarily dwarf varieties of French beans may not require support/training. Outline any two (2) benefits of support to these varieties of French beans. **(2 marks)**
- b) Weeds lower the yields of vegetable crops largely by competing with them for space and resources. Explain the roles of the following on weed control in fruity vegetables?
 - i). Pre-planting/-transplanting (of the crops) land preparation. **(2 marks)**
 - ii). Healthy vigorous vegetable crop plants. **(2 marks)**
 - iii). Plastic mulch culture/production system. **(4 marks)**

Q3.

- a) Depending on how they are used, cucumbers fruits are categorised either as slicing or pickling varieties. What is the main distinction between the slicing and pickling fruits? **(2 marks)**
- b) Why are straight-neck types of summer squash commercially more popular than the crookneck ones? **(2 marks)**
- c) Fruity vegetables have high water content making irrigation critical to them. How does one ensure sufficient water to the crops at and shortly after planting/transplanting? **(2 marks)**
- d) Breeding of cucumbers have resulted into varieties that exhibit different sex expressions (variation in male and female flowers). Explain the effects plant growth regulators have on sex expression. **(4 marks)**

Section B (30 marks)

Answer any three (3) questions in this section

Q4.

- a) Basing on the greenhouse size, spacing of the crop, germination rate and seed count per unit mass of the seeds, explain how a commercial farmer can determine what quantity of seeds to buy to grow a tomato crop in a given farm size. **(4 marks)**
- b) Compared to the yields of the world leading producers of most vegetables, Kenya's vegetable yields are the lowest. What are the main possible causes of the lower vegetable yields in Kenya relative to the world's leading producers? **(6 marks)**

Q5. Plastic mulch culture has become a standard practice in tomato production especially under largescale production.

- a) Explain the use of black plastic mulch to raise an early crop under temperate conditions **(4 marks)**

