



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

THIRD YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

HOR 441: VEGETABLE PRODUCTION

DATE: 10/11/2020

TIME: 2.00-4.00 PM

INSTRUCTIONS:

Answer *ALL* questions from Section A and any other *TWO* from Section B:

SECTION A: COMPULSORY: (30 MARKS)

QUESTION ONE (30 MARKS)

- a) Distinguish between indigenous and traditional vegetables (2 marks)
- b) Explain any FOUR methods of classifying vegetables (4 marks)
- c) Giving an example in each case, describe the four methods of classifying cabbage varieties based on shape of cabbage head (4 marks)
- d) Describe FOUR ways in which amaranth can be utilised (4 marks)
- e) Explain FOUR advantages of growing tomatoes in a greenhouse than in an open field (4 marks)
- f) Although previously referred to as poor man's vegetables, explain FOUR reasons why African indigenous vegetables have become popular in recent years (4 marks)
- g) Describe the climatic conditions for growing onions (4 marks)
- h) Describe the symptoms of two major diseases of potato (4 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

QUESTION TWO (20 MARKS)

Describe production of beetroot under the following headings

- a) Varieties (5 marks)
- b) Planting (5 marks)
- c) Management practices (10 marks)

QUESTION THREE (20 MARKS)

Explain the following aspects in tomato production

- a) Ecological requirements (5 marks)
- b) Crop establishment (5 marks)
- c) Four most common pests in Kenya (10 marks)

QUESTION FOUR (20 MARKS)

Describe production of watermelon under the following headings

- a) Environmental requirements (5 marks)
- b) Crop establishment (5 marks)
- c) Fertilizers and manures (5 marks)
- d) Pruning and mulching (5 marks)

QUESTION FIVE (20 MARKS)

Discuss greenhouse production of sweet pepper under the following headings

- a) Seedlings production in the nursery (5 marks)
- b) Preparation of planting beds and transplanting (5 marks)
- c) Fertigation (5 marks)
- d) Pest management (5 marks)