



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

THIRD/FOURTH YEAR SPECIAL/ SUPPLEMENTARY EXAMINATION FOR
BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

HOR 441: VEGETABLE PRODUCTION

DATE: 25/3/2021

TIME: 8.30-10.30 AM

INSTRUCTIONS:

Instructions: Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Explain three differences between exotic and traditional vegetables (3 marks)
- b) Explain FOUR antinutritional factors in vegetables (4 marks)
- c) Explain two classification of vegetables based on temperature adaptation (4 marks)
- d) Describe FOUR ways in which amaranth can be utilised for human consumption (4 marks)
- e) Describe THREE categories of African indigenous vegetables based on cultivation status (3 marks)
- f) Explain two agronomic differences in growing tomatoes in greenhouse compared to open field (4 marks)
- g) Describe four climatic conditions in production of cabbage (4 marks)
- h) Describe four symptoms of down mildew disease in onion (4 marks)

SECTION B: Answer any TWO Questions (40 Marks)

QUESTION TWO (20 MARKS)

Discuss production of onion under the following headings

- a) Climatic requirements (5 marks)
- b) Crop establishment (5 marks)
- c) Fertilizers and manures (5 marks)
- d) Harvesting and grading (5 marks)

QUESTION THREE (20 MARKS)

Discuss production of French bean under the following headings

- a) Application of manures and fertilizers (5 marks)
- b) Grading and storage (5 marks)
- c) Two pests and their management in Kenya (10 marks)

QUESTION FOUR (20 MARKS)

Discuss the following aspects in production of water melon

- a) Earthing up (5 marks)
- b) Fertilizers and manures (5 marks)
- c) Pruning (5 marks)
- d) Mulching (5 marks)

QUESTION FIVE (20 MARKS)

Discuss greenhouse production of tomato under the following headings

- a) Climate control in the greenhouse (5 marks)
- b) Planting beds preparation (5 marks)
- c) Staking (5 marks)
- d) Irrigation (5 marks)