



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

SECOND YEAR SPECIAL/ SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

AGR 206: HORTICULTURAL CROPS

DATE: 26/3/2021

TIME: 11.00-1.00 PM

INSTRUCTIONS:

Instructions: Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Describe FOUR roles played by horticulture in Kenya (4 marks)
- b) Explain FOUR benefits of home gardening (4 marks)
- c) Describe FOUR ways in which light affects production of horticultural crops (4 marks)
- d) Explain FOUR anti-nutrient factors found in vegetables (4 marks)
- e) Differentiate between multistoried orchard and high density orchard (4 marks)
- f) Explain the limitations of using resistant varieties in crop protection (4 marks)
- g) Differentiate between landscape horticulture and interior scaping (4 marks)
- h) Explain TWO ways in which fertilization affects post harvest life of horticultural produce (2 marks)

SECTION B: Answer any TWO Questions (40 Marks)

QUESTION TWO (20 MARKS)

Discuss the following regulations and market standards applicable to horticultural produce from Kenya to the European and USA markets

- a) EU directive on quarantine pests (5 marks)
- b) USDA sanitation protocol for Geraniums (5 marks)

- c) GlobalGAP (5 marks)
- d) British Retail Consortium (BRC) (5 marks)

QUESTION THREE (20 MARKS)

Discuss FOUR strategies used in biological control of pests and diseases in horticultural crops

QUESTION FOUR

Describe the following management practices in vegetable production

- a) Irrigation (5 marks)
- b) Staking (5 marks)
- c) De-suckering (5 marks)
- d) Ridging (5 marks)

QUESTION FIVE

Discuss how the following factors affect post harvest life of cut-flowers

- a) Temperature (5 marks)
- b) Light (5 marks)
- c) Ethylene (5 marks)
- d) Relative humidity (5 marks)