



MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES

DEPARTMENT OF AGRICULTURAL SCIENCES

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

HOR 211: PRINCIPLES OF HORTICULTURAL PRODUCTION

DATE: 30/8/2022

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) Distinguishing between pomology and olericulture (2 marks)
- b) Explain FOUR architectural reasons for landscaping (4 marks)
- c) Describe FOUR ways of increasing relative humidity in horticultural crops production (4 marks)
- d) Explain FOUR advantages of soil-less media in production of horticultural crops (4 marks)
- e) Explain FOUR reasons for the growth of Kenya's horticultural sector (4 marks)
- f) Describe TWO distinguishing features between the wick system and aeroponics system of hydroponics (4 marks)
- g) Explain four objectives of the British Retail Consortium (BRC) (4 marks)
- h) Explain FOUR effects of light in horticultural crops production (4 marks)

SECTION B: Answer any TWO Questions (40 Marks)

QUESTION TWO (20 MARKS)

- a) Discuss climate control in greenhouse horticultural production (10 marks)
- b) Describe the working principle of the Ebb and flow type of hydroponics (10 marks)

QUESTION THREE (20 MARKS)

- a) Describe how rhythm is achieved during landscaping (10 marks)
- b) Explain the effect of FIVE pre-harvest factors on post harvest shelf life of horticultural produce (10 marks)

QUESTION FOUR (20 MARKS)

- a) Describe FIVE features of market gardening (10 marks)
- b) With the aid of a well labelled diagram, describe FOUR pruning methods in horticultural crops (10 marks)

QUESTION FIVE (20 MARKS)

- a) Explain different types of peats used in horticultural production (10 marks)
- b) Explain FOUR audit standards in Global GAP certification (10 marks)