



MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES

DEPARTMENT OF AGRICULTURAL SCIENCES

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

HOR 442: FRUIT PRODUCTION

DATE: 31/8/2022

TIME: 11.00-1.00 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) Differentiate between pollinizer and pollination in apple production. (2 marks)
- b) Explain four ways in which fruit production maintains ecological balance. (4 marks)
- c) Using a diagram, describe the process of grafting passion fruit. (4 marks)
- d) Describe the modified leader system in pruning fruit trees. (4 marks)
- e) Explain FOUR disadvantages of chemical fruit thinning. (4 marks)
- f) Describe the construction of the trellising system in production of passion fruits. (4 marks)
- g) Explain four strategies of bud breaking in fruit production. (4 marks)
- h) Describe the process of propagating guava using seeds. (4 marks)

SECTION B: Answer any TWO Questions (40 Marks)

QUESTION TWO (20 MARKS)

There has been a heightened campaign in production of avocado in the country in recent years.

- a) Discuss the opportunities in this new drive. (10 marks)
- b) What are the risks farmers may face embracing this farming. (10 marks)

QUESTION THREE (20 MARKS)

- a) With the aid of a well labelled diagram, explain the four vegetative propagation materials used in pineapple production. (10 marks)
- b) Discuss five strategies in the management of citrus greening disease. (10 marks)

QUESTION FOUR (20 MARKS)

- a) With the aid of a well labelled diagram, describe the steps of developing the kniffin system in training of grapevines. (10 marks)
- b) Describe the ecological requirements in papaya production. (10 marks)

QUESTION FIVE

- a) Discuss five practices in management of bacterial wilt disease in banana. (10 marks)
- b) Describe the process of passion fruit propagation using seeds. (10 marks)