



MACHAKOS UNIVERSITY

University Examinations for 2016/2017 Academic Year

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

THIRD YEAR SECOND SEMESTER EXAMINATION FOR DIPLOMA IN
AGRICULTURAL EDUCATION AND EXTENSION

HOR 0341: GENERAL FRUIT PRODUCTION

DATE: 1/8/2017

TIME: 2:00 – 4:00 PM

Instructions

Answer ALL the questions in SECTION A and ANY TWO (2) questions in section B

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Define the term “ Pomology ” (1 mark)
- b) Explain the following in relation to fruit production
- i) Drupe and pome (2 marks)
 - ii) Flowering stages in fruit trees (3 marks)
 - iii) Main objective of orchard floor management (1 mark)
 - iv) Root rot in avocado. (2 marks)
 - iv) Papaya sexual forms (3 marks)
 - v) Challenges of Urban and peri-urban fruit production in Kenya (3 marks)
- c) Describe four (4) techniques of trellising the grape (*Vitis vinifera*) (4 marks)
- d) i) Explain the term “compatibility” in relation to fruit production (2 marks)
- ii) Differentiate budding and grafting (2 marks)
 - iii) Explain four (4) planting plans used in laying out an orchard (4 marks)
- e) Describe the harvesting and packaging of strawberries (*Fragaria spp*) (3 marks)

SECTION B: ANSWER ANY TWO (2) QUESTIONS (40 MARKS)

QUESTION TWO (20 MARKS)

Discuss the production of fruit crops under the following:

- a) 'slips' and 'suckers' in pineapple management (10 marks)
- b) Sucker management in banana production (10 marks)

QUESTION THREE (20 MARKS)

Describe the production of mango (*mangifera indica* L.) under the following:

- a) Soil and climatic requirements (10 marks)
- b) Land preparation and spacing (5 marks)
- c) Harvesting (5 marks)

QUESTION FOUR (20 MARKS)

One of the most effective ways of influencing fruit crop productivity is through proper pruning and training practises. Discuss the following in relation to fruit crop production.

- a) Central leader training of apples (10 marks)
- b) Trellising of passion fruit (10 marks)

QUESTION FIVE (20 MARKS)

Describe the site selection considerations and tree spacing arrangements for the establishment of a citrus orchard (20 marks)