



2ND SEM. 2009/2010

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMME: BACHELOR OF SCIENCE IN AGRONOMY AND
HORTICULTURE YEAR III**

COURSE CODE: HORT 308

TITLE OF PAPER: TROPICAL AND SUBTROPICAL FRUIT CROPS

TIME ALLOWED: TWO [2] HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

DO NOT OPEN UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR

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QUESTION 1

Provide a planting guide for farmers who are interested in growing bananas (*Musa spp*) in Mahlanya using the following guide:

- a) Climatic and soil requirements (6 marks)
- b) Planting material and spacing (5 marks)
- c) Irrigation and fertilization (8 marks)
- d) Pruning, desuckering and propping (4 marks)
- e) Pests and diseases (2 marks)

[25 marks]

QUESTION 2

Demonstrate your knowledge of the vegetative methods used to propagate fruit crops by completing the chart. Each answer carries 0.5 marks. (25 marks)

Plant	Hardwood Cuttings	Semi-Hardwood Cuttings	Softwood Cuttings	Grafting	Air Layering
1. <i>Persea americana</i>					
2. <i>Musa spp.</i>					
3. <i>Citrus sinensis</i>					
4. <i>Coffea arabica</i>					
5. <i>Litchi chinensis</i>					
6. <i>Mangifera indica</i>					
7. <i>Psidium guajava</i>					
8. <i>Passiflora edulis</i>					
9. <i>Punica granatum</i>					
10. <i>Opuntia ficus-indica</i>					

[25 marks]

QUESTION 3

Pruning tropical fruit trees depends on the growth habit of the species grown. Discuss the guidelines for canopy manipulation of the following species:

- (i) Cherimoya (4 marks)
 - (ii) Citrus (8 marks)
 - (iii) Fig (4 marks)
 - (iv) Jaboticaba (4 marks)
 - (v) Japanese persimmon (5 marks)
- [25 marks]**

QUESTION 4

The pawpaw (*Carica papaya* L) is a popular fruit in Swaziland. Provide a production guideline for the crop covering the following aspects:

- (i) Climatic and soil requirements (14 marks)
 - (ii) Papaya sex forms: (8 marks)
 - (iii) Planting Material and spacing (3 marks)
- [25 marks]**

QUESTION 5

Discuss the production of pineapples (*Ananas comosus* L) using the following guidelines:

- a) Soil and climatic requirements (11 marks)
 - b) Spacing and planting material by cultivar (10 marks)
 - c) Pests and diseases (4 marks)
- [25 marks]**