



1st SEM. 2008/2009

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME: BACHELOR OF SCIENCE IN HORTICULTURE YEAR IV

COURSE CODE: HORT 405

TITLE OF PAPER: TEMPERATE FRUIT AND NUT PRODUCTION

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

Discuss objectives of any fruit breeding programme. (15 marks)
Outline the methods employed in the propagation of fruit tree rootstocks. (10 marks)

[25 marks]

QUESTION 2

- a) Define the significance of 'thinning' flowers or fruits (8 marks)
- b) Discuss the conditions which affect the response 'chemical thinning' of fruit crops. (17 marks)

[25 marks]

QUESTION 3

The apple (*Malus domestica* Borkh.) is widely consumed in Swaziland although not widely cultivated. Most of the known cultivars have a specific chilling temperature requirement that is necessary for successful cultivation. What interventions may be made for sustainable production of apple in Swaziland?

[25 marks]

QUESTION 4

The pecan nut is a popular tree nut that has not gained wide cultivation in Swaziland. Provide some cultural facts that may help enhance the production of this economically important crop.

[25 marks]

QUESTION 5

In situations where dwarfing rootstocks were unavailable, orchard managers had resorted to cultural / physical manipulation techniques to modify growth of tree crops. Discuss the significance of 'root pruning' in this regard.

[25 marks]