



1ST SEM. 2007/2008

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMME: BACHELOR OF SCIENCE IN HORTICULTURE
YEAR 4**

COURSE CODE: HORT 405

**TITLE OF PAPER: TEMPERATE FRUITS AND NUTS
PRODUCTION**

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

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BY THE CHIEF INVIGILATOR**

QUESTION 1

- a) Outline the conditions that ensure the success of grafting in fruit crop propagation in general. (8 marks)
- b) Discuss the occurrence of 'incompatibility' in grafting (17 marks)

[25 marks]

QUESTION 2

Discuss the methods of 'trellising' of the grapevine as an important factor in grape (*Vitis vinifera* L) quality determination.

[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 is the extent of our knowledge concerning the cultivars and cultivation of apple in Swaziland?

[25 marks]

QUESTION 4

Macadamia nut (*Macadamia integrifolia* L.) 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

The performance of apricot (*Prunus armeniaca* L.) depends largely on the type of rootstock used in vegetative propagation of the desired cultivar. Provide information on the following commonly used rootstocks for apricot production in North America:

- (a) Apricot Seedling (*Prunus armeniaca* L.) (7 marks)
- (b) Peach Seedling (*Prunus persica* L.) (6 marks)
- (c) Myrobalan Plum Seedling (*Prunus cerasifera* L.) (6 marks)
- (d) American Plum Seedling (*Prunus americana* L.) (6 marks)

[25 marks]