



2ND SEM. 2018/2019

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UNIVERSITY OF ESWATINI

FINAL EXAMINATION PAPER

PROGRAMME:

BACHELOR OF SCIENCE IN HORTICULTURE YEAR IV

COURSE CODE:

HRT410

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

QUESTION 1

Discuss the pruning of temperate fruit trees following these guidelines:

- (a) Pruning tools (5 marks)
- (b) Timing of pruning (10 marks)
- (c) Pruning systems (10 marks)

[25 Marks]

QUESTION 2

Write short notes on the temperate fruit canopy manipulation techniques as follows:

- (a) Mechanical fruit thinning (7 marks)
- (b) Chemical fruit thinning (13 marks)
- (c) Deblossoming (5 marks)

[25 Marks]

QUESTION 3

- a) Discuss the significance of climate change on the "chilling requirements" of temperate fruit crops (13 marks)
- b) Provide a list of "low chill" cultivars of the following temperate fruit species:

(12 marks)

- (i) Apples (3)
- (ii) Nectarines (2)
- (iii) Peaches (4)
- (iv) Japanese plums (3)

[25 Marks]

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

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QUESTION 4

Discuss the production of blueberry (*Vaccinium* spp-L) following these guidelines:

- a) Climate (5 marks)
- b) Fertilization ((10 marks)
- c) Irrigation (8 marks)
- d) Planting times (2 marks)

[25 Marks]

QUESTION 5

Provide guideline for the production of pecan nuts (*Caryaillinoensis* L) under the following:

- a) Climate
- b) Soils
- c) Bearing age

(15 marks)
(8 marks)
(2 marks)

[25 marks]