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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME : **BACHELOR OF SCIENCE AGRICULTURE YEAR V (AEM, CP, HORT & LWM OPTIONS)**

COURSE CODE : **HORT 501**

TITLE OF PAPER : **FRUIT CROPS**

TIME ALLOWED : **TWO [2] HOURS**

INSTRUCTIONS : **ANSWER ANY FOUR (4) QUESTIONS**

DO NOT OPEN UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR

QUESTION 1

Your boss in the Ministry of Agriculture wants you to assist him write a paper entlitled 'the status of the fruit crop industry in the Kingdom of Swaziland' to be presented in a conference. How would you approach this task?

[25 marks]

QUESTION 2

Pollination is a process and practice that entails both the scientific and business components

a) Discuss how a fruit grower and a beekeeper are involved in the business side of the pollination of fruit crops

b) Using relevant examples, discuss the pollination process as it occurs in avocado (*Persea americana* L)

[25 marks]

QUESTION 3

The interactions between the root and the shoot is of paramount importance in fruit crop nutrition. Discuss the significance of the relationship between nitrogen and calcium in correlative growth, productivity and quality of fruit crops.

[25 marks]

QUESTION 4

A farmer complains that the yield in his orchard fluctuates from a high in one season to a low or close to nothing in another season. With the knowledge that flowering is the foundation process in determining fruit crop productivity:

a) Discuss the chemical and environmental factors that influence the flowering process in general

b) Discuss how your knowledge of 'plasticity in flowering' exhibited by mango (*Mangifera indica* L.) may assist in providing an explanation to the farmer's problem.

[25 marks]

QUESTION 5

The foundation from the bearing potential of fruit trees is laid during the training and pruning of fruit tree shoots and /or roots.

a) Discuss the guidelines to be followed in pruning any fruit tree shoot

b) Discuss the physiology governing the effects of pruning of any fruit tree shoot.

[25 marks]