



2ND SEM 2006/2007

PAGE 1 OF 2

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMME : BACHELOR OF SCIENCE AGRICULTURE YEAR V
[HORT OPTION]**

COURSE CODE : HORT 506

**TITLE OF PAPER : POSTHARVEST PHYSIOLOGY OF HORTICULTURAL
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

In postharvest physiology of horticultural crops, the role of hormones is of paramount importance in the keeping quality of the produce.

- a) outline the ethylene biosynthetic pathway
- b) describe desirable and undesirable effects of ethylene on harvested horticultural crops.

[25 marks]

QUESTION 2

Discuss factors affecting respiration rates of harvested horticultural products.

[25 marks]

QUESTION 3

Discuss the significance of 'calcium' in the postharvest physiology of some named fruit crops.

[25 marks]

QUESTION 4

Describe the various methods of pre-cooling harvested horticultural crops.

[25 marks]

QUESTION 5

One of the most accessible approaches to maintenance of horticultural product quality is in the manipulation of the storage environment. Discuss the significance of 'controlled atmosphere (CA)' and modified atmosphere (MA) in this respect.

[25 marks]