UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME:	BACHELOR OF SCIENCE IN HORTICULTURE YEAR 4
COURSE CODE:	HORT 409
TITLE OF PAPER:	POST-HARVEST PHYSIOLOGY OF HORTICULTURAL CROPS
TIME ALLOWED:	TWO (2) HOURS
INSTRUCTION:	ANSWER ANY FOUR (4) QUESTIONS

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BY THE CHIEF INVIGILATOR

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QUESTION 1

a) Distinguish physiological maturity from horticultural maturity. Give examples [10 marks]

b) Discuss with the aid of examples five destructive maturity indices used to harvest horticultural crops [15 marks]

[25 marks]

QUESTION 2

a) Discuss five pre-cooling methods used in harvested crops [15 marks]

b) Discuss the use of controlled atmosphere (CA) storage to prolong shelf-life of cabbages [10 marks]

[25 marks]

QUESTION 3

a) Outline the ethylene (C_2H_4) biosynthetic pathway [10 marks]

b) Discuss how you can manipulate this pathway to achieve desirable effects and to prevent undesirable effects of C_2H_4 [15 marks]

[25 marks]

QUESTION 4

Discuss five environmental factors that influence deterioration of harvested horticultural crops **[25 marks]**

QUESTION 5

Describe the following pertaining to post-harvest management:

i) relative humidity (RH) control [12 marks]

ii) supplements to temperature management [13 marks]

[25 marks]