



2ND SEM. 2010/2011

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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**

INSTRUCTION: ANSWER ANY FOUR (4) QUESTIONS

QUESTION 1

a) Describe the advantages and disadvantages of mechanical harvesting of horticultural crops [10 marks]

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

[25 marks]

QUESTION 2

a) Discuss chilling injury (CI) as it affects harvested horticultural crops. [15 marks]

b) Discuss the use of controlled atmosphere (CA) storage to prolong shelf life of apples [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 biological factors that influence deterioration of harvested horticultural crops

[25 marks]

QUESTION 5

Discuss the physiology of minimally or lightly processed (MP or LP) fruits and vegetables

[25 marks]