UNIVERSITY OF JOHANNESBURG

FACULTY	: SCIENCE
DEPARTMENT	: BOTANY AND PLANT BIOTECHNOLOGY
CAMPUS	: APK
MODULE	: BOT8X01 POSTHARVEST PHYSIOLOGY
SEMESTER	: SECOND
EXAM	: NOVEMBER 2019

DATE	: 11 NOVEMBER 2019	**SESSION**	: 08:30-11:30
ASSESSOR	: DR NZ NGOBESE		
INTERNAL MODERATOR	: PROF OA FAWOLE		
EXTERNAL MODERATOR	: DR N MATHABA		
DURATION	: 3 HOURS	**MARKS**	: 100

INSTRUCTIONS:

1. Answer ALL THE QUESTIONS.
2. Write legibly and number your answers clearly.

QUESTION 1

In detail, discuss the THREE main preharvest factors that affect the postharvest quality of fresh produce.

(15)

QUESTION 2

Provide guidelines for harvesting, handling, storing and transporting tomatoes in an area where fungicides/bactericides and cold storage facilities are not available.

(25)

QUESTION 3

What are the differences between controlled atmosphere packaging and modified atmosphere storage? Provide an example for each to show how these technologies are used to extend the shelf life of fruits and vegetables.

(15)

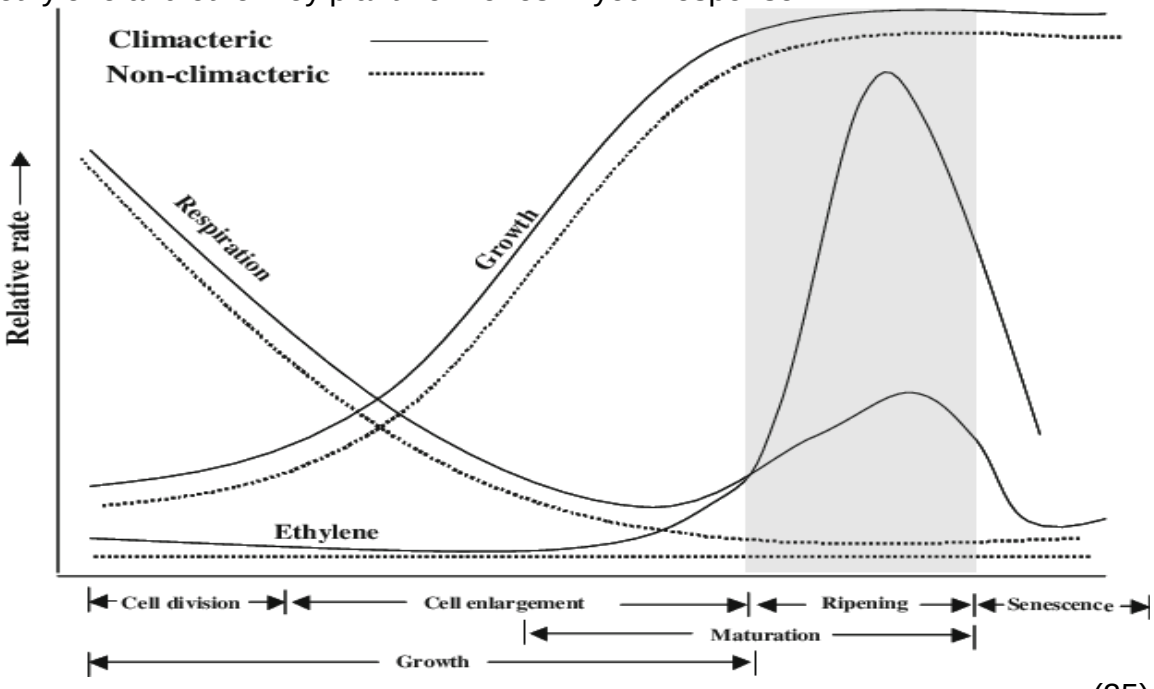
QUESTION 4

Describe the physiological differences that distinguish sweet corn (*Zea mays*) as fresh produce from dry field corn. Give recommendations on how sweet corn should be stored.

(20)

QUESTION 5

With the aid of the diagram below, discuss the physiological changes that occur in climacteric and non-climacteric fruits during development. Highlight the role of ethylene and other key plant hormones in your response.



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