FACULTY	AGRICULTURE, ENGINEERING AND NATURAL SCIENCES		
SCHOOL	AGRICULTURE AND FISHERIES SCIENCES		
DEPARTMENT	FOOD SCIENCE AND SYSTEMS		
SUBJECT	POST-HARVEST TECHNOLOGY		
SUBJECT CODE	F3601SP		
DATE	JUNE 2024		
DURATION	3 HOURS	**MARKS**	100

First Opportunity Examination

Examiner: **Dr. P. Hiwilepo – van Hal**

Internal Moderator: Mr. S. Emvula

External Moderator: **Prof. V. A. Jideani**

This question paper consists of **one (1)** page excluding this front page.

Instructions

- **Answer all five (5) questions**

QUESTION 1

a) Discuss the essential components of good post-harvest management practices for cereal grains. **[10]**

b) What are post-harvest losses and how can they be controlled? **[10]**

QUESTION 2

a) Explain the physico-chemical changes that most of the consumers associate with ripening of fruits. Include changes that are initiated by ethylene and those that are not. **[12]**

b) Discuss chilling injury in fruits and vegetables. List three (3) examples and for each indicate at which temperature chilling injury can occur. **[8]**

QUESTION 3

a) Describe the function of CAS in preserving harvested products. **[5]**

b) List the types of gases most often used in MAP/CAS and give the advantages and disadvantages of each gas. **[10]**

c) Explain internal and external factors (2 of each) that influence the rate of respiration of fruits and vegetables. **[8]**

QUESTION 4

a) Outline the role of refrigerated warehouses in maintaining the quality of stored fruits and vegetables. **[6]**

b) Discuss three (3) suitable packaging methods for transporting perishable goods over long distances. **[9]**

c) How do product characteristics influence the selection of packaging materials? **[5]**

d) Explain the significance of transportation conditions in selecting packaging materials. **[5]**

QUESTION 5

Briefly discuss the difference between the following:

a) Transpiration and respiration **[3]**

b) Horticultural maturity and physiological maturity **[3]**

c) Curing and conditioning **[3]**

d) Primary and secondary pest attacks in cereals **[3]**

END OF THE EXAMINATION