



**SIR ARTHUR LEWIS COMMUNITY COLLEGE  
ACADEMIC YEAR (2024/2025) – SEMESTER ONE  
END OF SEMESTER FINAL EXAMINATION**

***COURSE CODE*** : **AGR204**  
***COURSE TITLE*** : **Post –Harvest Management**  
***LECTURER(S)*** : **Germain Ambrose**  
***DATE*** : **Friday May 2<sup>nd</sup>, 2025**  
***TIME*** : **9:00 a.m – 11: 00 a.m**  
***DURATION*** : **2 Hours**  
***ROOM*** : **VAR-0R-03**  
***STUDENT ID #*** : \_\_\_\_\_

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**GENERAL INFORMATION AND INSTRUCTIONS**

This examination consists of **TWO (2)** sections.

- **SECTION A** consists of **TEN (10)** multiple choice questions.
- **SECTION B** consists of **THREE (3)** structured questions.
- Students must sign **IN** and **OUT** on the examination class list.
- Write your **Student ID** number on the question paper.

**DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO**

## SECTION A

1. This instrument is used to measure the firmness of a fruit like apple:
  - A) Colorimeter
  - B) Refractometer
  - C) Penetrometer
  - D) Thermometer
2. This pre - harvest factor has the most significance in terms of commodity disease resistance:
  - A) Genetics
  - B) Daily mean temperature
  - C) Light intensity
  - D) Wind direction and duration
3. Blossom end rot in a bell pepper crop is primarily caused by:
  - A) Increased transpiration and irrigation
  - B) Entry of microorganisms and soil heat
  - C) Irregular irrigation and lack of calcium and boron
  - D) Storage of starch and carbohydrate reserves
4. Regulatory Standards are established by:
  - A) Government or regulatory agencies
  - B) Private-sector industry
  - C) Baron Foods
  - D) Scientific institutions
5. The market preference for okra as a fresh commodity best fits which state of maturity?
  - A) Harvest ripe
  - B) Firm and mature
  - C) Physiological immature
  - D) Sprouting stage
6. The market preference for Julie mangoes as a fresh commodity for export best correlates to which state of maturity?
  - A) Physiological immature
  - B) Sprouting stage
  - C) Harvested tree ripe
  - D) Firm and mature
7. Generally, fresh leafy horticultural products need to be stored under conditions of high relative humidity to:
  - A) Discourage the growth of microorganisms
  - B) Encourage the growth of microorganisms
  - C) Release ethylene gas
  - D) To reduce moisture loss and wilting
8. The over packing of soft food commodities such as berries in large wooden crates at harvest may increase the possibility of\_\_\_\_\_
  - A) Blossom end rot
  - B) Chilling and freezing injury
  - C) Mechanical injury
  - D) Unintentional sprouting
9. Which one of the following can be described as a physical cause of food commodity deterioration?
  - A) Rodents
  - B) Relative humidity
  - C) Microbial activity
  - D) Enzymatic reactivity

10. The fruits of *Solanum melongena* and *Solanum lycopersicum* which are in the Solanaceae or nightshade family can best be categorised as
- A) Perishables
  - B) Poisonous
  - C) Durables
  - D) Seeds

## SECTION B

Answer all questions. Begin each question on a NEW sheet of paper please.

### QUESTION ONE

Cabbage and lettuce are both leafy crops.

- A. Which of these crops is more prone to shrinkage and becoming flaccid? (1 mark)
- B. What is the opposite of flaccid? (1mark)
- C. Briefly explain **THREE (3)** reasons for increased shrinkages for the crop you have chosen (in A above) as compared to the other crop. (6 marks)
- D. Suggest **TWO (2)** recommendations to farmer Kendall to treat blossom end rot in his crops. (2 marks)

**Total 10 marks**

### QUESTION TWO

Seeds are classified as a durable food commodity.

- A. State **TWO (2)** characteristics which enable a seed to be classified as a durable commodity. (2marks)
- B. State **ONE (1)** characteristic of a perishable commodity. (1 mark)
- C. Why is precooling in the field important? Name a simple method for **pre-cooling**. (3 marks)
- D. What does the acronym **GAPs** stand for? (1 mark)
- E. Briefly explain **ONE (1) GAP** practice you have noted at the SALCC farm. (3 marks)

**Total 10 marks**

### QUESTION THREE

Seed sprouts are harvested at the earliest part of their life cycle and are considered very nutritious.

- A. What is the scientific term for this part of the plant life cycle? (1 marks)
- B. Briefly explain why this food commodity is considered very nutritious (2 marks)
- C. Make **TWO (2)** suggestions to farmer Paul to help him potentially reduce post-harvest loss in his market tray display. (2 marks)
- D. Farmer Alexander has harvested lettuce and passionfruit in separate crates. He has stored them in the same store room for 3 days and has asked you whether it is a good practice. Please advise the farmer. (3 marks)
- E. State **ONE (1)** commodity which many be classified as climacteric and **ONE** commodity classified as non-climacteric. (2 marks)

**Total 10 marks**

**END OF EXAM**