



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2024/2025

### SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DIPLOMA IN AGRICULTURE

#### AAD 2405: POST HARVEST HANDLING OF CROPS

DATE: DECEMBER 2024

TIME: 1½ HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

#### QUESTION ONE (30 MARKS)

- a) Highlight any five vegetable products found in Kenyan markets. (5 marks)
- b) State any four maturity indicators in AVOCADO fruits. (4 marks)
- c) Discuss different causes of food spoilage. (6 marks)
- d) State five properties of good packaging material. (5 marks)
- e) Definitely, distinguish between climacteric and non-climacteric fruits (4 Marks)
- f) State three factors to consider when locating a packinghouse (3 marks)
- g) Explain the concept of pre-cooling transport vehicles before loading (3 marks)

#### QUESTION TWO (15 MARKS)

Kenya is a major producer and exporter of fruits and vegetables in the world. However, over 60% of fresh produce is lost due to poor postharvest management technologies.

- a) Discuss five main postharvest malpractices that contribute to these losses (10 marks)

- b) Evaluate banana value and supply chain management in Kenya and suggest ways of improvement that could reduce postharvest losses (5 marks)

**QUESTION THREE (15 MARKS)**

- a) As a post-harvest physiologist, you have been selected to give a brief talk on maturity indicators of avocado at Nakuru agricultural show talk. Mention four factors you will site as a commodity maturity indicator for avocado (4 marks)
- b) Kendi harvested her banana crop and realized that they spoiled faster shortly after harvesting. Describe four possible measures she would take to arrest this (8 marks)
- c) Giving two potential benefits, what is controlled atmosphere (3 marks)

**QUESTION FOUR (15 MARKS)**

- a) Explain any five compositional changes that take place during fruits ripening (10 marks)
- b) Discuss five main post-harvest malpractices that lead to loss of fruits and vegetable (5 marks)