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(Knowledge for Development)

# KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2019/2020 ACADEMIC YEAR

FOURTH YEAR FIRST SEMESTER

SPECIAL/SUPPLEMENTARY EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE  
AND BIOTECHNOLOGY

COURSE CODE: SAB 432

COURSE TITLE: POST HARVEST PHYSIOLOGY AND TECHNOLOGY

DATE: 01/02/2021.

TIME: 11-2 PM.  
& TRACT.

## INSTRUCTIONS TO CANDIDATES

Answer Question One and Any other TWO (2) Questions

TIME: 2 Hours

### **QUESTION ONE**

- a. Describe the following terminologies as used in post-harvest physiology and technology;
- i. Development (2 MKS)
  - ii. Maturation (2 MKS)
  - iii. Physiological maturity (2 MKS)
  - iv. Aging (2 MKS)
  - v. Harvesting (2 MKS)
- b. Discuss any FIVE methods of reducing postharvest losses (10 MKS)
- c. Describe any FIVE factors to consider for safe storage of grains. (10 MKS)

### **QUESTION TWO**

- a. Discuss any FIVE objective methods of measuring quality and maturity index. (10 MKS)
- b. Describe any FIVE methods of controlling relative humidity in controlling water loss in harvested produce (10 MKS)

### **QUESTION THREE**

- a. Explain any FIVE compositional changes that occur during fruit maturation (10 MKS)
- b. Discuss any FIVE external factors that cause post-harvest losses (10 MKS)

### **QUESTION FOUR**

- a. Describe any FIVE advantages of ethylene in production of fruits. (10 MKS)
- b. Discuss any FIVE pre-harvest factors that affect quality of harvested produce. (10 MKS)

### **QUESTION FIVE**

- Discuss any FIVE methods of reducing or controlling water loss in harvested horticultural produce (20 MKS)