JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SECURITY

3ND YEAR 1ND SEMESTER 2017/2018 ACADEMIC YEAR

REGULAR

COURSE CODE: APT 3316

COURSE TITLE: POST-HARVEST TECHNOLOGY AND PHYSIOLOGY

EXAM VENUE: LR 7   **STREAM: BSc. (Food Security)**

DATE: 12/12/17   **EXAM SESSION: 2.00 – 4.00PM**

TIME: 2.00 HOURS

Instructions:

1. **Answer ALL questions in section A and ANY other 2 Questions in section B.**
2. **Candidates are advised not to write on question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A (30 MARKS)

Answer ALL questions in this section

1. Define the term 'postharvest loss.'   (6marks)

2. Briefly state the economic importance of perishable (horticultural) crops.(6marks)

4. State the major reason why horticultural crops are inherently liable to deteriorate under different climatic and other circumstances.   (6marks)

5. Briefly explain why in the warm humid tropics, fresh fruit a and vegetables spoil faster than in temperate regions.   (6marks)

6. Enumerate the major physiological responses regulated by ethylene in harvested horticultural p;roducts.   (6marks)

SECTION B: (40 MARKS)

Answer ANY TWO questions from this section

Table 1: Climacteric and non-climacteric fruits

	Climacteric	Non-climacteric
Citrus		
Bananas		
Grapes		
Tomatoes		
Strawberries		

7 a). Define the terms climacteric and non-climacteric fruits.   (6marks)
 b). Tick in the appropriate row to indicate whether Climacteric or Non-climacteric.(10marks)
 c). Explain the fact that postharvest handling is more important, as the main determinant of the postharvest losses.   (4marks)
8 a). Explain the various ways of reducing the storage temperature of horticultural crops.
                                                                                  (6marks)
 b). Define and explain the significance of the following: i). air embolism ii). blanching
                                                                                  (6marks)
 c). Enumerate four (4) of the ten (10) top reasons why flowers do not last.   (8marks)

9.a). Discuss the factors affecting post harvest qualiy in flowers.   (12marks)
 b). State the goals of post harvest handling   (3marks)
 c). State three factors responsible for most of the losses in perishable crops. (3marks)
 d). Name the most commonly encountered disease in flowers.   (2marks)