



# **KISII UNIVERSITY**

## **UNIVERSITY EXAMINATIONS**

**THIRD YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF  
BACHELOR OF SCIENCE BIOCHEMISTRY  
SECOND SEMESTER 2021/2022  
(FEBRUARY-JUNE, 2022)**

**BIOC 324/ BSLT 436: FOOD BIOCHEMISTRY**

**STREAM: Y3 S2**

**TIME: 2 HOURS**

**DAY: TUESDAY, 12:00 PM – 11:00 PM**

**DATE: 10/05/2022**

**INSTRUCTIONS:**

- 1. Do not write anything on this question paper.***
- 2. Answer all questions in section A and any TWO in section B.***

**SECTION A: ANSWER ALL QUESTIONS (40 MARKS)**

- 1) Differentiate between food storage and food preservation. (3 marks)
- 2) Define fiber and discuss the mechanisms that determine their health impact. (3 marks)
- 3) Illustrate the role of lipase and lipoxygenase. (3 marks)
- 4) Define the following terms: (5 marks)
  - a) Cofactor
  - b) Nutrition
  - c) Electrolyte
  - d) Resistant starch
  - e) Food spoilage
- 5) What is nutrition? Briefly explain the concept of human diet. (5 marks)
- 6) Briefly explain the major causes of food spoilage. (5 marks)
- 7) What are the factors affecting nutritive value of vegetables? Briefly describe them. (8 marks)
- 8) Enumerate the biochemical composition of fruits. (8 marks)

**SECTION B: ANSWER ANY TWO QUESTIONS (30 MARKS)**

- 9) Discuss biochemical composition and food value of fruits. (15 marks)
- 10) Discuss the objectives of post-harvest technology and explain post-harvest losses. (15 marks)
- 11) Describe in details fundamentals of food processing. (15 marks)