



TECHNICAL UNIVERSITY OF MOMBASA

School of Applied and Health Sciences
DEPARTMENT OF PURE AND APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN BIOCHEMISTRY
ABC 4206: NUTRITIONAL BIOCHEMISTRY
SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: July 2025 SERIES

TIME: 2 HOURS

DATE: JULY 2024

Instructions to Candidates

You should have the following for this examination

Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question ONE

- a) Outline health risks associated with consumption of excessive amounts of high-fructose corn syrup (6 marks)
- b) Identify some of the globulin's proteins and their roles in transport (6 marks)
- c) Describe the roles and functions of energy releasing B complex vitamins (6 marks)
- d) Explain the absorption of glucose and galactose (6 marks)
- e) Describe the condition, kwashiorkor (6 marks)

Question TWO

Discuss the role of fiber in disease prevention and management

(20 marks)

Question THREE

Describe the digestion of proteins, accounting for the role played by each enzyme.

(20 marks)

Question FOUR

Discuss the following under calcium as major mineral in the body;

- i) Sources (10 marks)
- ii) Absorption (10 marks)

Question FIVE

In nutritional requirements of fat-soluble vitamins, discuss the following;

- i) Biochemical or physiological role (8 marks)
- ii) Deficiency syndrome (6 marks)
- iii) Sources (6 marks)