



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied and Health Sciences
DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

**UNIVERSITY EXAMINATION FOR THE DEGREE OF:
BACHELOR OF SCIENCE IN COMMUNITY HEALTH**

BSCH 20S/21J/YEAR4/ SEMESTER 2

APH 4409: NUTRACEUTICALS AND FOOD SUPPLIMENTS

Supplementary/Special Examination

Series: November 2024

Time: 2 hours

DATE: Pick Date Nov 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.
- Mobile phones are NOT allowed in the examination room
- **Do not write on the question paper.**

SECTION A (Answer all the questions - 30 POINTS)

QUESTION ONE (30)

- Differentiate between Nutraceuticals from Food fortification (4 marks)
- If children consume diets that are lacking in vitamin D what deficiency is bound to occur to them if no intervention is done. Name the deficiency and its symptoms (5 marks)
- Explain why you can recommend Carrots and Avocado consumption as functional foods to cure hypertension (high blood pressure) (4 marks)
- Expound on reasons for food fortification. (4 marks)
- State four health benefits of Omega-3 fatty acids (4 marks)
- Briefly explain why importing food is important to any given country (4 marks)
- Outline four ways of preventing food poisoning so that one gets health benefits nutritionally from the food consumed (5 marks)

QUESTION TWO. (20 MARKS)

- a. Juliet is a nurse working in Kwale hospital she has noticed a high prevalence of type 2-diabetes in her patients, she then comes to you for advice on how to reduce the rate of the disease naturally. a) Outline four symptoms of type 2 diabetes 4marks
- b. Discuss with her four natural ways of controlling type 2- diabetes. 12 marks
- c. Outline the importance of taking whole grain products 4 marks.

QUESTION THREE. (20 MARKS)

- a) Explain the following traditional Nutraceuticals;
 - i) Phytochemicals
 - ii) probiotics 13 marks
- b) Describe five advantages of food fortification 7 marks

QUESTION FOUR. (20 MARKS)

- a. Discuss five factors that affect minerals bioavailability 10marks
- b. When doing food supplement, vitamin A is one of the vitamins used. Explain the functions of vitamin A and four food sources of vitamin A. 10marks

QUESTION FIVE. (20 MARKS)

- a) Describe six safety issues of food supplements 12marks
- b) Discuss health benefits of garlic. 8marks.