



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

END OF SEMESTER EXAMINATION

SERIES: Aug 2024

TIME:2HOURS

DATE:Pick DateAug2024

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 supplements. 4 marks
- Briefly explain importance of foods rich in antioxidants 4 marks
- Briefly explain information that a manufacturer or distributor should notify FDA about a dietary supplement it intends to market 4marks
- Outline five health benefits that one is bound to achieve when they take functional food leeks 5marks
- When advising on consumption of functional foods to clients Tumeric is one of the foods that you advise them to avoid because of its side effects. Explain two of its side effects to the body 4marks

Paper I

- f) Vitamin B1 is one of the vitamins used as a dietary supplement. Explain two functions of vitamin B1 that consumers look forward to getting in their body. 4marks
- g) Outline five causes of vitamin D deficiency 5 marks

QUESTION TWO. (20)

Vitamin A has been used as a food supplement for many years due to beneficial health effects.

- a. Explain the health benefits of vitamin A and give four food sources. 14 marks
- b. Describe mass fortification. 6 marks

QUESTION THREE. (20)

- a) Explain target fortification (4 marks)
- b) State 5 advantages and 5 disadvantages of food fortification (11 marks)
- c) Explain milk fortification with Vitamin D (5 marks)

QUESTION FOUR. (20)

- a) Describe five safety issues of food supplements 10marks
- b) Explain five factors that affect minerals bioavailability 10marks

QUESTION FIVE. (20)

- a) Explain the advantages of
 - i. Probiotics (5 marks)
 - ii. Fiber (5 marks)
- b) Explain 5 benefits of dietary supplements that healthcare providers can recommend (5 marks)
- c) Name 5 dietary supplements and what they assist in (5 marks)