



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCE
BMLS AUGUST 2020 J/S FT/YEAR 4/SEMESTER 2
ANH: 4101 PRINCIPLES OF HUMAN NUTRITION

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2024

TIME: 2HOURS

DATE: Pick Date **AUG 2024**

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

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

Do not write on the question paper.

SECTION A (Answer all the Questions)

(30 Marks)

QUESTION ONE

- a) Define the following terms:
 - i) Vitamins (2marks)
 - ii) Nutrition surveillance (2 marks)
- b) Outline 5 risky factors associated with the deficiency of vitamin D. (5marks)
- c) Differentiate essential amino acids from non-essential amino acids (4 marks)
- d) State four anthropometric methods used in nutritional surveys for children. (4 marks)
- e) State five nutritional functions of Ascorbic acid in human nutrition. (5 marks)
- f) Outline five nutritional characteristics experienced in deficiency of essential fatty acids. (5 marks)
- g) Outline 4 reasons why good nutrition is important for good health (4 marks)

QUESTION TWO

- a. Explain how diabetes type 2 can be managed (10 marks)
- b. Explain three underline causes of malnutrition (10 marks)

QUESTION THREE

Discuss utilization of calcium and iron in human nutrition under the following

- Biochemical functions.
- Disease state.
- Factors affecting absorption. (20 marks)

QUESTION FOUR

a) A 35 year old man presents with delayed wound healing, frequent urination and hyperglycemia

- i) What deficiency disease is he suffering from (1 mark)
- ii) Outline 4 causes of the said disease (2 marks)
- iii) Explain 3 management methods of the said disease (6 marks)
- iv) What is a treatment used for this disease (1 mark)

b) A woman presents with a weight of 160 kgs and a height of 2 meters

- i) State the BMI calculation formula (1 mark)
- ii) Calculate and categorize the BMI of the woman (3 marks)
- iii) What factors would cause the BMI of the woman (3 marks)
- IV) Explain management methods you would recommend to the woman (3 marks)

QUESTION FIVE

You have been posted to Kinango in Coast region which is a semi-arid location as a nutritionist

- a) Explain 5 anthropometric measurements that you can apply to assess nutrition status for under 5 yr olds (10 marks)
- b) Outline 10 questions that you'll include in your checklist for assessing nutrition status for the under 5 yr olds (10 marks)

