

**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 15S, BSDS 15S/YEAR1/ SEMESTER2**  
**APH 4208: PRINCIPLES OF HEALTH AND NUTRITION**  
**SEMESTER EXAMINATION**  
**SERIES: APRIL/MAY 2016**  
**TIME: 2 HOURS**

*Instructions to Candidates*

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions.

*This paper consists of two printed pages.*

**QUESTION 1 (COMPULSORY)**

- a) Explain the meaning of the following terms: - (4mks)
  - i.) Nutrition
  - ii.) Food
  - iii.) Glycolysis
  - iv.) Malnutrition
  
- b) For each of the following nutrients, indicate the nutritional disorder that will result due to its deficiency (3 marks)
  - i) Vitamin C
  - iii) Thiamine
  - iv) Niacin
  
- c) Explain the following terms as used in dietary standards (3mks)
  - i.) Recommended Dietary Allowance (RDA)
  - ii.) Tolerable Upper Intake Levels (UL)

- iii.) Estimated average Requirement (EAR)
- d) Define the term nutrition education (2mks)
- e) Distinguish between saturated fatty acids and unsaturated fatty acids. (4mks)
- f) Differentiate between essential amino acids and non-essential amino acids and give an example of each. (4 mks)
- g) State four pillars of safe motherhood (4marks)
- h) Nutrition support is an important element of ensuring a sick individual receives nutrients. List at least 3 methods of providing nutrients through Enteral nutrition. (3mks)
- i) Describe consumer education and state 3 parties involved in the process. (3mks)

## QUESTION 2

- a) Discuss the classification of carbohydrates (10mks)
- b) Discuss the absorption, digestion and utilization of carbohydrates (10mks)

## QUESTION 3

- a) Briefly discuss four uses of nutritional status assessment. (10mks)
- b) Explain the following indices of anthropometric measurements.
  - i. Weight-for-age (4 Marks)
  - ii. Weight for-height (4 Marks)
  - iii. Body mass index (BMI) (2 Marks)

## QUESTION 4

- a) The food pyramid is a useful tool in planning a balanced meal. With the aid of a diagram describe the serving quantities for different nutrients. (15 mks)
- b) Outline five modifications of diet during old age to ensure adequate nutrients are provided to the body (5 mks)

## QUESTION 5

You are running a small health centre in one of the rural counties in Kenya and notice that there are many cases of malnutrition in children under the age of five years.

- a) Describe what could be the cause of the malnutrition? (15mks)
- b) What intervention strategies would you put in place to deal with the situation.(5mks)