



KISII UNIVERSITY

UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF THE
DEGREE OF BACHELOR OF SCIENCE IN NUTRITION AND DIETETICS
SECOND SEMESTER, 2021/2022
(FEBRUARY - JUNE, 2022)**

FOND 123: MACRONUTRIENTS

STREAM: Y1 S2

TIME: 3 HOURS

DAY: FRIDAY, 2:00 – 5:00 P.M.

DATE: 13/05/2022

INSTRUCTIONS

- 1. Do not write anything on this question paper.***
- 2. Answer Question ONE [Compulsory] and any other TWO Questions.***

SECTION A IS COMPULSARY AND IS 40 MARKS

QUESTION ONE

a. Differentiate the following terminologies giving any relevant examples

[5 marks]

- 1. Parathormone and calcitonin**
- 2. Essential nutrients and non essential nutrients**
- 3. Nutrients and nutrition**
- 4. .enrichment and fortification**
- 5. Major minerals and Trace Minerals**

b . Discuss and Relate foods with specific micronutrients in nutrition [5 marks]

c. Elaborate on the Biochemical and Physiological needs of nutrients in the body [5marks]

d. Discuss the metabolic processes of vitamins in the body [5marks]

e. Elaborate On The Factor affecting zinc absorption [5 marks]

F. Discuss on the Nutrient Deficiency Stages with an aid of a diagram [5 marks]

G. Discuss on the Interferences of phosphorus levels in the body [5 marks]

H. Discuss the five factors that affect how much of a vitamin is available to the body. [5 marks]

SECTION B IS 30 MARKS

QUESTION TWO

a) Differentiate between water soluble vs fat soluble vitamins giving relevant examples (7 marks)

b) Discuss on the Metabolic Pathways Involving B Vitamins [8 marks]

QUESTION THREE

a) With examples, differentiate between vitamins vs minerals [7marks]

b) Discuss on the Factors that influence calcium absorption [8marks]

QUESTION FOUR

a).Discuss on the various Trace minerals ,their RDAS ,functions in the human body [7marks]

b).Explain the consequences of inadequate and excessive vitamin intake giving relevant examples [8 marks]