



**UNIVERSITY OF SWAZILAND
SUPPLEMENTARY EXAMINATION PAPER**

PROGRAMME: BACHELOR OF SCIENCE IN FOOD SCIENCE,
NUTRITION AND TECHNOLOGY, CONSUMER
SCIENCE AND CONSUMER SCIENCE EDUCATION
YEAR II

COURSE CODE: FNS203

TITLE OF PAPER: HUMAN NUTRITION

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER QUESTION ONE (1) AND ANY OTHER TWO
(2) QUESTIONS

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY
THE CHIEF INVIGILATOR**

QUESTION 1 (COMPULSORY)

(a) Describe the role and deficiency diseases of the following nutrients:

i. Carbohydrates

(10 Marks)

ii. Protein

(10 Marks)

iii. Iodine

(10 Marks)

(b) Name the essential amino acids that are required by children.

(10 Marks)

[TOTAL MARKS = 40]

QUESTION 2

(a) Discuss the metabolism of glucose in the body

(15 Marks)

(b) Explain the metabolic effects of over-nutrition and under-nutrition.

(15 Marks)

[TOTAL MARKS = 30]

QUESTION 3

(a) Discuss the importance of nutrition on the outcome of pregnancy.

(15 Marks)

(a) Describe the most nutritional considerations for adolescents

(15 Marks)

[TOTAL MARKS = 30]

QUESTION 4

(a) Compare and contrast over-nutrition and under-nutrition.

(20 Marks)

(b) Describe the benefits of breastfeeding for both the infant and the mother.

(10 Marks)

[TOTAL MARKS = 30]