



1ST SEM. 2019/20

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UNIVERSITY OF ESWATINI

FINAL EXAMINATION PAPER

**PROGRAMME : FOOD SCIENCE, NUTRITION AND
TECHNOLOGY YEAR III**

COURSE CODE : FNS305

**TITLE OF PAPER : PRODUCT DEVELOPMENT AND
FORTIFICATION**

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) Explain the following terms citing examples in each case:
i. New product development
ii. Market research
iii. Food fortification
iv. Deficiency
(20 Marks)
- b) Explain **five (5)** advantages of fortification
(15 Marks)
- c) Describe the **two (2)** essentials of new product development.
(5 Marks)

[TOTAL MARKS = 40]

QUESTION 2

- a) Using illustrations explain the stages of a product life-cycle.
(20 Marks)
- b) Using **five (5)** points, describe the criteria when selecting a vehicle for food fortification.
(10 Marks)

[TOTAL MARKS = 30]

QUESTION 3

- a) Discuss the challenges associated with the following potential nutrients for food fortification giving examples where appropriate.
i. Iron salts
ii. Vitamin C
(10 Marks)
- b) Justify why market research should be carried at the initial stages and in the later stages of new product development.
(10 Marks)
- c) Explain **five (5)** reasons why a new product may fail.
(10 Marks)

[TOTAL MARKS = 30]

QUESTION 4

- a) Explain the difference between product-oriented food product development and market-oriented food product development.
(20 Marks)
- b) Using **five (5)** points, justify the importance of performing market research in new product development.

(10 Marks)

[TOTAL MARKS = 30]