



2ND SEM. 2014/15

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**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER**

**PROGRAMME : BACHELOR OF SCIENCE IN FOOD SCIENCE,
NUTRITION AND TECHNOLOGY, YEAR III**

COURSE CODE : FSNT 306

TITLE OF PAPER : FOOD PROCESSING 1

TIME ALLOWED : TWO (2) HOURS

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

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CHIEF INVIGILATOR**

QUESTION 1 (COMPULSORY)

- (a) Using appropriate examples to illustrate your point, compare and contrast processing and preservation. **(8 Marks)**
- (b) Food Processing is an ancient skill and practice. However, since it was organized into a formal industry, it has continued to grow, develop and expand in sophistication, diversity of processors, range of products, supply chains and marketing outlets. Discuss only **four (4)** factors that have contributed to the growth and development and, that have led to practices in the modern-day food processing/manufacturing industry. **(20 Marks)**
- (c) Fresh Produce can be prepared into various streams or ways for the market. Identify these different streams and explain the different types of storage used to ensure quality and an extended shelf life of such produce. **(12 Marks)**

[TOTAL MARKS = 40]**QUESTION 2**

- (a) Explain the 'Hurdle concept', its value or importance in modern day food processing. What brought it about? **(9 Marks)**
- (b) Explain the changes that can impact on the quality or safety of processed products made from underground/earth starchy (cassava, taro, sweet potatoes or Irish potatoes) products. **(12 Marks)**
- (c) Discuss the relevance and importance of the 'Process Flow Chart/Diagram' in food manufacturing operations. **(9 marks)**

[TOTAL MARKS = 30]

QUESTION 3

Define the following terms and explain their significance/importance in Food Processing applications. Illustrate with appropriate examples:

- | | | |
|-------|--------------------------------|-----------|
| (i) | An Asset Register or Inventory | (6 Marks) |
| (ii) | Specification Sheet | (8 Marks) |
| (iii) | Value chain | (8 Marks) |
| (iv) | Supply chain | (8 Marks) |

[TOTAL MARKS = 30]

QUESTION 4

- (a) Explain and discuss in detail why industrial and community-based food and agro-processing are typically considered ways or strategies of eradicating poverty.

(18 Marks)

- (b) Identify and discuss **three (3)** technological advancements that have greatly improved the organoleptic and presentation quality of processed foods.

(12 Marks)

[TOTAL MARKS = 30]