



2ND SEM. 2015/16

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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 I

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) Discuss the factors that have led to the growth and development and, that continue to fuel growth in the Food Industry. (20 Marks)
- (b) Suggest ways in which small scale commercial processors in Swaziland can participate and be fully integrated into global food trade/business. (20 Marks)

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

- (a) Define the following terms and explain their significance/importance in Food Processing applications. Illustrate with appropriate examples:
- i) Process Flow Diagram (8 Marks)
 - ii) Supply Chain (6 Marks)
 - iii) Value-added product (4 Marks)
 - iv) Specification Sheet. (6 Marks)
 - v) Food Product Development (6 Marks)

[TOTAL MARKS = 30]**QUESTION 3**

- (a) Foods, processed and unprocessed will undergo physical, biochemical or microbiological changes that will result in the lowering of quality or in the loss of safety. Identify and describe **two (2)** types of changes that commonly occur per category, how they can be controlled. Use appropriate examples to illustrate your answer. (16 Marks)
- (b) Moisture removal and desired Water Activity (A_w) in foods is achieved by using different techniques. Identify and describe **four (4)** of these techniques and explain how each is done to achieve the desired state in the food. (14 Marks)

[TOTAL MARKS = 30]

QUESTION 4

- (a) Explain the key steps and the main points to consider to ensure quality and safe processing of the following foods. Give two examples of processed products for each.
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|------|----------------------------|-----------|
| i) | Pork (Fresh and Processed) | (6 Marks) |
| ii) | Fish or any sea food | (6 Marks) |
| iii) | Chicken or poultry | (6 marks) |
| iv) | Vegetables | (6 Marks) |
| v) | Eggs | (6 Marks) |

[TOTAL MARKS = 30]