



127

**2<sup>ND</sup> SEM. 2014/15**

**PAGE 1 OF 3**

**UNIVERSITY OF SWAZILAND  
FINAL EXAMINATION PAPER**

**PROGRAMMES : BACHELOR OF SCIENCE IN FOOD SCIENCE,  
NUTRITION AND TECHNOLOGY, YEAR III  
CONSUMER SCIENCE EDUCATION, YEAR III  
CONSUMER SCIENCE, YEAR III**

**COURSE CODE : FSNT 308**

**TITLE OF PAPER : FOOD PRESERVATION**

**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) Explain in detail the value and goal of the preservation of food at both the household and community levels. (15 Marks)
- (b) Effective and safe preservation of foods requires knowledge and control of certain factors. Identify and discuss the relevance or importance of **five (5)** of these factors in the preservation of quality and safe food. Illustrate your answer with appropriate examples. (10 Marks)
- (c) In the preservation of jams, jellies and marmalades at home how would you prepare, make and ensure quality and, keep for 6 months such a product of your choice? (15 Marks)

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

- (a) Fresh produce can deteriorate rapidly if the storage or keeping conditions are not good. Discuss **three (3)** techniques that large scale operators of fresh produce use to extend the shelf life of fresh produce. (15 Marks)
- (b) In preserving food by freezing it is important to manage and control heat in the foods to be preserved and after it is preserved. Discuss why this is important. (15 Marks)

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

- (a) Explain in detail the principle and methods behind Concentration as a preservation method. Illustrate your answer with appropriate examples. (15 Marks)
- (b) Identify and explain in detail the process(es) involved in **three (3)** of the methods or techniques used to preserve food by dehydration or removal of moisture. (15 Marks)

**[TOTAL MARKS = 30]**

**QUESTION 4**

Explain the application and importance of the following terms in the preservation of food.  
Illustrate with appropriate examples.

- |       |                      |           |
|-------|----------------------|-----------|
| (i)   | Case hardening       | (5 Marks) |
| (ii)  | D-value              | (5 Marks) |
| (iii) | Blanching            | (5 Marks) |
| (iv)  | Purging              | (5 Marks) |
| (v)   | Hermetically sealed  | (5 Marks) |
| (vi)  | Respiration quotient | (5 Marks) |

[TOTAL MARKS = 30]