



2<sup>ND</sup> SEM. 2015/16

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**UNIVERSITY OF SWAZILAND**  
**SUPPLEMENTARY 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? (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/purveyors 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) Describe in detail the principle and methods behind concentration as a preservation method. Illustrate your answer by explaining the critical process steps to be controlled in the processing of **two (2)** products preserved in this way for quality and safe products (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) Hermetically sealed (5 Marks)
- (ii) Case hardening (5 Marks)
- (iii) Purging (5 Marks)
- (iv) D-value (5 Marks)
- (v) Blanching in preservation by Heat (5 Marks)
- (vi) Chilling before start to preserve by freezing (5 Marks)

**[TOTAL MARKS = 30]**