



**2<sup>ND</sup> SEM. 2011/2012**

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FSNT 408 (M)**

**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

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

**COURSE CODE : FSNT 408**

**TITLE OF PAPER : FOOD PACKAGING &  
TRANSPORTATION**

**TIME ALLOWED : TWO (2) HOURS**

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

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**QUESTION 1 [COMPULSORY]**

- a) Explain the importance of crystallization in food. [10 Marks]
- b) Describe the three types of seals used in glass containers. [6 Marks]
- c) Describe the manufacture of three-piece cans. [6 Marks]
- d) Discuss the meaning of tolerable negative error (TNE), giving an example of how it is calculated based on the nominal quantity. [5 Marks]
- e) Define packaging. [3 Marks]
- f) Discuss five functions of packaging. [10 Marks]

**[Total marks = 40]**

**QUESTION 2**

- a) During storage, food can deteriorate depending on storage conditions. Discuss four factors which could lead to deterioration and explain how packaging could be used to combat deterioration in each case. [20 Marks]
- b) Tinplates can be coated with different lacquers. Describe two lacquers that could be used giving their characteristics and uses. [10 Marks]

**[Total marks = 30]**

**QUESTION 3**

- a) Explain how each of the following product characteristics affect logistic cost in transportation.
  - i. Volume-to-weight ratio.
  - ii. Value-to-weight ratio.[10 Marks]
- b) Describe the following transportation containers:
  - i. Insulated container.
  - ii. Refrigerated container.[10 Marks]
- c) Describe the following methods of cleaning a transportation container or carrier:
  - i. Dry cleaning.
  - ii. Wet cleaning.[10 Marks]

**[Total marks = 30]**

**QUESTION 4**

- a) Describe the significance of the 'e-mark' that may be printed on some food packages.

[10 Marks]

- b) Distinguish between MAP and CAP, giving examples in each case. [10 Marks]

- c) When designing a package there are certain factors that might influence its success in advertising. Describe at least five factors that will contribute towards its success.

[10 Marks]

**[Total marks = 30]**

**QUESTION 4**

- a) Describe the significance of the 'e-mark' that may be printed on some food packages.

[10 Marks]

- b) Distinguish between MAP and CAP, giving examples in each case. [10 Marks]

- c) When designing a package there are certain factors that might influence its success in advertising. Describe at least five factors that will contribute towards its success.

[10 Marks]

**[Total marks = 30]**

**1<sup>ST</sup> SEM. 2011/12**

**UNIVERSITY**



**OF SWAZILAND**

**FINAL EXAMINATION PAPER**

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

**COURSE CODE : FSNT 409**

**TITLE OF PAPER : FOOD PROCESSING II**

**TIME ALLOWED : TWO (2) HOURS**

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

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