

1ST SEM. 2018/2019



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UNIVERSITY OF ESWATINI
FINAL EXAMINATION PAPER

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

COURSE CODE : FNS405

TITLE OF PAPER : FOOD PRESERVATION

TIME ALLOWED : TWO (2) HOURS

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

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN
GRANTED BY THE CHIEF INVIGILATOR**

QUESTION 1 [COMPULSORY]

- (a) Define the following terms: - (10 Marks)
- i. Food preservation [3 Marks]
 - ii. Pasteurization [4 Marks]
 - iii. Gamma radiation [3 Marks]
- (b) Discuss the importance of food preservation (use 5 points). (10 Marks)
- (c) It is estimated that about one-third losses occur through the food chain. Explain using **five (5)** points why these losses occur. (10 Marks)
- (d) Discuss **five (5)** conditions for spoilage. (10 Marks)
- [TOTAL = 40 Marks]

QUESTION 2

- (a) Give **four (4)** examples of chemical additives that could be used in food preservation. (2 Marks)
- (b) Explain the difference between MAP and CAP. (10 Marks)
- (c) Discuss UHT processing and Aseptic packaging in thermal preservation. (10 Marks)
- (d) Describe the **four (4)** advantages of fermenting foods. (8 Marks)
- [Total = 30 Marks]

QUESTION 3

- (a) Discuss the **four (4)** techniques that can be used in proper food handling before processing. (20 Marks)
- (b) Discuss the concerns/issues related to the following methods of preservation: - (10 Marks)
- i. Refrigeration
 - ii. Freezing
- [TOTAL = 30 Marks]

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QUESTION 4

Describe the **three (3)** types of preservation techniques used in your term project, stating the principle applied in each case. Among the techniques used, which method was the best and why?

(30 Marks)

[TOTAL = 30 Marks]