

**NATIONAL UNIVERSITY OF LESOTHO**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF NUTRITION**  
**PRINCIPLES OF FOOD PROCESSING - NUT3325**  
**SEMESTER II EXAMINATION**

**JUNE 2023**

**TIME: 3HRS**

**MARKS: 100**

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**Instruction:**

- Attempt all the questions.

### Question one

- a. Discuss the importance of Food Processing. [10]
- b. Give the mechanisms by which food deteriorate. [3]
- c. Explain the need for non-thermal food processing from the consumer's point of view. [7]

[Total Mark: 20]

### Question two

Describe the following food processing techniques, illustrating their preservative mechanisms.

- a. Fermentation [6]
- b. Drying [4]
- c. High-pressure processing [6]
- d. Freezing [4]

[Total Mark: 20]

### Question three

Considering the process of milk to sour milk (*Mafi*), show the process flow diagram showing the unit operations involved. Indicate the critical control points as well as the hazards involved.

[Total Mark: 20]

### Question four

Differentiate between the following as used in food processing.

- a. Batch processing and Continuous processing [5]
- b. Pasteurization and Sterilization [5]
- c. Steam blanching and Water blanching [5]
- d. Alcoholic fermentation and Lactic acid fermentation [5]

[Total Mark: 20]

### Question five

- a. Discuss the benefits of food additives. [10]
- b. Write a short note on food fortification. [5]
- c. Explain the importance of Food packaging. [5]

[Total Mark: 20]