

**NATIONAL UNIVERSITY OF LESOTHO
FACULTY OF AGRICULTURE
DEPARTMENT OF ANIMAL SCIENCE**

SUPPLEMENTARY EXAMINATION

ANS 4506 - LIVESTOCK PRODUCTS & PROCESSING

AUGUST, 2023

MARKS: 100

TIME: 3 HOURS

INSTRUCTION:

- Answer all questions
- Start each question on a new page

Question 1

- a) Differentiate between the following terms as applied in food processing:
- i. Livestock products and livestock by-products
 - ii. Meat extenders and meat fillers
 - iii. Cold shortening and rigor mortis
 - iv. Hydrolytic rancidity and oxidative rancidity
 - v. Basic dairy products and value-added dairy products [20]
- b) Fermentation is a cheap food processing technology. Describe how food fermentation helps to extend the shelf life of food products. [10]

Question 2

- a) Name any five processed meat products. [5]
- b) Heat treatment as one of the most important meat processing techniques plays a vital role in food safety. Describe any five meat attributes impacted by heat treatment. [15]
- c) Describe at least five steps in poultry processing in their chronological order. [10]

Question 3

- a) Describe any four (4) dairy production systems common in African continent and their significances and challenges. [20]
- b) Consumption of livestock products seems to be high in less developed countries. Discuss any three (3) important factors influencing the increasing demand for livestock products. [12]
- c) Describe four major factors affecting composition of processed dairy products. [8]