



2ND SEMESTER 2018/2019

UNIVERSITY OF SWAZILAND

RE-SIT/SUPPLEMENTARY EXAMINATION PAPER

PROGRAMME: B. Sc. AGRICULTURAL EDUCATION AND B.Sc. ANIMAL SCIENCE YEAR IV

COURSE CODE: ASC403/408

TITLE OF PAPER: DAIRY PRODUCTION AND TECHNOLOGY

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY TWO (2) QUESTIONS IN SECTION I
AND ANY TWO (2) QUESTIONS IN SECTION II

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

SECTION A

QUESTION 1

Compare and contrast the external anatomy of a cow, goat and sheep. (25 Marks)

QUESTION 2

Discuss the five major dairy production systems used world-wide and explain a system that you would recommend for Eswatini. (25 Marks)

QUESTION 3

Describe the milking procedure followed in a modern dairy farm and explain how milk contamination and spoilage is avoided at farm level. (25 Marks)

SECTION B

QUESTION 4

Describe and illustrate the following milk biomolecules:

- a) Milk Riboflavin (10 Marks)
- b) Lecithin (10 Marks)
- c) Methionine (5 Marks)

QUESTION 5

- a) Explain the major differences between acid cheese and sweet cheese. (6 Marks)
- b) Describe and illustrate the following milk biomolecules:
 - i) β -D Galactose (6 Marks)
 - ii) Ascorbic acid (6 Marks)
 - iii) Alanine (7 Marks)

QUESTION 6

Discuss the differences between the properties and technologies for

Koumiss and yoghurt

(25 Marks)