



2ND SEM. 2017/2018

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

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

COURSE CODE: AS 403

TITLE OF PAPER: DAIRY PRODUCTION AND TECHNOLOGY

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY 4 QUESTIONS.

THIS PAPER MAY NOT BE OPENED UNTIL THE CHIEF INVIGILATOR HAS GRANTED PERMISSION.

QUESTION 1

Discuss feeding of dairy calves with colostrum and milk.

(25 Marks)

QUESTION 2

Swaziland is still not self-sufficient in milk production despite the introduction of the biggest dairy farm. Discuss the problems faced by the dairy industry in the country and suggest ways in which these can be addressed.

(25 Marks)

QUESTION 3

Write short notes on the following:

- a. Milk let down
- b. Ideal year of a dairy cow

(15 marks)

(10 marks)

SECTION B

QUESTION 4

- a) List and explain four (4) major differences between casein and whey proteins
- b) Describe and illustrate the following milk biomolecules

(8 Marks)

- i) Lecithin
- ii) Riboflavin

(10 Marks)

(7 Marks)

QUESTION 5

- a) Explain and describe the origin of the biomolecules used for the biosynthesis of milk triacylglycerides.
- b) Outline and illustrate the biosynthetic pathway of milk triacylglycerides.

(10 Marks)

(15 Marks)

QUESTION 6

- a) Explain the major differences between ice milk and ice cream **(10 Marks)**
- b) Discuss the technology of soft cheese making **(15 Marks)**