



UNIVERSITY OF SWAZILAND

2ND SEM.2013/2014

FINAL EXAMINATION PAPER

**PROGRAMME: B.SC. AGRICULTURAL EDUCATION YEAR 4,
ANIMAL SCIENCE YEAR 4**

COURSE CODE: AS 403

TITLE OF PAPER: DAIRY PRODUCTION AND TECHNOLOGY

TIME ALLOWED: TWO (2) HOURS

INSTRUCTION: ANSWER ANY FOUR QUESTIONS

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

QUESTION 1

- a) Discuss the mechanism of milk ejection reflex. (15 Marks)
- b) Identify and explain factors that inhibit milk ejection reflex. (10 Marks)

QUESTION 2

- a) Compare goat's and cow's milk with regard to fat component. (5 Marks)
- b) Describe the structure and function of the major components of the mammary gland. (20 Marks)

QUESTION 3

- a) What is Eutrophication? Discuss its causes and possible prevention strategies in dairy farms. (15 Marks)
- b) Define membrane process and describe any two types of membrane processes. (10 Marks)

QUESTION 4

- a) Describe homogenization and briefly explain its objectives. (13 Marks)
- b) Compare and contrast the following: (2×6 =12 Marks)
 - i. Set yogurt and stirred yogurt
 - ii. Rennet casein and Acid casein

QUESTION 5

- a) Explain the purpose of the following operations in butter processing from whole milk. (2×5=10 Marks)
 - i. skimming the milk
 - ii. pasteurization of the cream
- b) Identify the different kinds of records worth keeping on all farms and write short notes on each. (15 Marks)