



UNIVERSITY OF SWAZILAND

2nd SEM.2014/2015

SUPPLEMENTARY EXAMINATION PAPER

**PROGRAMME: B.SC. AGRICULTURAL EDUCATION YEAR 4, B.SC.
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 PERMISSION HAS BEEN
GRANTED BY THE CHIEF INVIGILATOR.**

QUESTION 1

- a) State the characteristics of an ideal crop for silage making. What are the processes the crop under go if it does not fulfil some of this requirements. **(18 Marks)**
- b) Describe manipulation of photoperiod in lactation and state its mechanisms. **(7 Marks)**

QUESTION 2

- a) Write short notes on synchronization of oestrus. **(15 Marks)**
- b) List five important requisite of Loose Housing with Free Stalls (Cubicles). **(10 Marks)**

QUESTION 3

- a) Describe how factors in milk regulate milk secretion in the absence of milk removal. **(10 Marks)**
- b) Outline the steps of protein synthesis in the mammary secretory cell. **(15 Marks)**

QUESTION 4

- a) Write short notes on homogenization of milk. **(10 Marks)**
- b) State five phenotypic taxonomic criteria that are used to discriminate between the genera and species of the organisms used in dairy fermentation. **(15 Marks)**

QUESTION 5

- a) Identify and explain three types of casein preparation. **(10 Marks)**
- b) State five common environmental problems associated with farm yard wastes. Describe the proper treatment methods used nowadays for waste management. **(15 Marks)**