



**2<sup>ND</sup> SEM. 2005/2006**

**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

**PROGRAMME:** B. Sc. AGRICULTURE YEAR IV, APH  
AND AEM OPTIONS;  
B.Sc. AGRICULTURAL EDUCATION  
YEAR IV

**COURSE CODE:** APH 408

**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 the role of hormones in lactogenesis and galactopoiesis. **(25 Marks)**

**QUESTION 2**

Discuss manipulation of lactation in the dairy cow. **(25 Marks)**

**QUESTION 3**

Describe and illustrate the synthesis of lactose in the mammary cell. **(25 Marks)**

**QUESTION 4**

Mr. Maseko has been trying to make set yoghurt, but the product always have syneresis. What advice can you give him so that he can get a viscous product. **(25 Marks)**

**QUESTION 5**

Describe the major differences between the following:

- a) Hydrogen peroxide and lactoperoxidase system **(5 Marks)**
- b) Coliform bacteria and lactic acid bacteria **(5 Marks)**
- c) Koumis milk and Acidophilus milk **(5 Marks)**
- d) Casein proteins and whey proteins **(10 Marks)**