



**2<sup>ND</sup> SEM. 2015/2016**

**UNIVERSITY OF SWAZILAND**

**SUPPLEMENTARY 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 the following:

- a. Dairy production and technology. **(10 Marks)**
  - b. Importance of dairy science. **(10 Marks)**
  - c. Major functions of the Swaziland Dairy Board. **(5 Marks)**
- (25 Marks)**

**QUESTION 2**

Discuss the major differences in milk production between the developing and developed countries

**(25 Marks)**

**QUESTION 3**

Briefly discuss lactogenesis. With an aid of a diagram, discuss how the stage of lactation affect milk yield and composition.

**(25 Marks)**

**QUESTION 4**

Giving **TWO** examples in each case, explain the differences between the following:

- a) Yeast culture and lactic acid bacteria culture **(7 Marks)**
  - b) Coliform bacteria and lactic acid bacteria **(7 Marks)**
  - c) Casein proteins and whey proteins **(6 Marks)**
  - d) Saturated and unsaturated milk fatty acids **(5 Marks)**
- (25 Marks)**

**QUESTION 5**

**COMPARE** and **CONTRAST** the technologies of the following dairy products:

- a. Koumis and yoghurt **(8 Marks)**
  - b. Ice cream and ice milk **(8 Marks)**
  - c. Acid cheese and sweet cheese **(9 Marks)**
- (25 Marks)**