



**2<sup>ND</sup> SEM. 2013/2014**

**UNIVERSITY OF SWAZILAND**

**SUPPLEMENTARY EXAMINATION PAPER**

**PROGRAMME: B. Sc. ANIMAL SCIENCE DAIRY  
OPTION YEAR IV**

**COURSE CODE: ASD 402**

**TITLE OF PAPER: DAIRY 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**

Describe the role of the following enzymes in dairy technology

- a) Phosphatase (10 Marks)
- b)  $\beta$ -galactosidase (6 Marks)
- c) Lipases (9 Marks)

**QUESTION 2**

Outline the classification of milk proteins. (25 Marks)

**QUESTION 3**

Briefly describe the following tests for milk analysis

- a) Coliform test (10 Marks)
- b) Clot on boiling test (5 Marks)
- c) Methylene blue test (5 Marks)
- d) Specific gravity test (5 Marks)

**QUESTION 4**

Outline the procedure you may follow to make cottage scale emasi. (25 Marks)

**QUESTION 5**

Describe the major differences between the following:

- a) Ice cream and ice milk (8 Marks)
- b) Recombined milk and toned milk (7 Marks)
- c) Yoghurt and Kumiss (10 Marks)