



# UNIVERSITY OF SWAZILAND

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

## FINAL 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.**

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THE CHIEF INVIGILATOR**

**QUESTION 1**

Using structures to illustrate your answer, describe the following milk biomolecules:

- a) Lactose. (9 Marks)
- b) Lecithin. (8 Marks)
- c) Riboflavin. (8 Marks)

**QUESTION 2**

Describe triacylglyceride and explain its biosynthesis pathway. (25 Marks)

**QUESTION 3**

Explain the following and give two examples in each case:

- a) Differences between yeast culture and lactic acid bacteria culture used for dairy fermentation (7 Marks)
- b) Differences between fat soluble vitamins and water soluble vitamins found in milk. (6 Marks)
- c) Differences between whey proteins and casein proteins. (12 Marks)

**QUESTION 4**

Outline the procedure you may follow to make sweet cheese. (25 Marks)

**QUESTION 5**

Compare and contrast the following:

- a) The lactoperoxidase system and hydrogen peroxide system. (15 Marks)
- b) Milk sterilisation and pasteurization. (10 Marks)