

**UNIVERSITY OF FORT HARE**

AGA 416

**MAIN EXAMINATIONS**

**June 2023**

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**Time: 3 HOURS**

**Subject: Dairy Science and Technology**

**Marks: 100**

**This paper consists of 2 pages including cover page**

**Internal Examiner: Mr W. Mashece and Dr C.T. Mpendulo**

**External Examiner: Prof. V. Mlambo**

**Instructions**

- 1. Answer ALL questions**
- 2. It is in your best interest to write clearly and legibly.**

## SECTION A

### QUESTION 1 [20 marks]

1. Explain the feeding management of a dairy cow at different stages of the lactation cycle. [20 marks]

### QUESTION 2 [20 marks]

1. Briefly describe the total mixed ration & pasture-based feeding system and outline their advantages and disadvantages. [20 Marks]

### QUESTION 3 [20 marks]

- (a) Describe the managerial factors that affect milk composition. [10 marks]
- (b) Describe the importance of body condition scoring in dairy cows. [10 marks]

## SECTION B

### QUESTION 4 [20 marks]

Write short notes on the following:

- (a) Milk sampling procedure. [10 marks]
- (b) Advantages of CIP Systems. [5 marks]
- (c) Ultra-high temperature treatment (UHT). [5 marks]

### QUESTION 5 [20 marks]

- (a) Explain pasteurisation procedures used to extend the shelf life of milk. [15 marks]
- (b) State five advantages of milk pasteurisation. [5 marks]

**END OF PAPER**