

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2014/2015**

THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SCIENCE AND TECHNOLOGY AND FOOD SCIENCE AND NUTRITION

**AFS 2310: FUNDAMENTALS OF DAIRY SCIENCE**

**DATE: APRIL 2015 TIME: 2 HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Briefly explain characteristics of any three indigenous enzymes found in milk (6 Marks)
2. Explain the factors that may affect milk yield and composition (6 Marks)
3. Explain the composition and distribution of milk lipids (6 Marks)
4. Name and explain the functional characteristics of lactose (6 Marks)
5. Explain the tests that can be carried out to determine the freshness of milk (6 Marks)

**QUESTION TWO (20 MARKS)**

Discus the distribution and characteristics of milk proteins (20 Marks)

**QUESTION THREE (20 MARKS)**

Name and explain the functional attributes associated with the non fat dry milk powder

(20 Marks)

**QUESTION FOUR (20 MARKS)**

Citing specific examples discuss mineral distribution in milk (20 Marks)