



**MERU UNIVERSITY OF SCIENCE & TECHNOLOGY**

*Foundation of innovations*

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examination 2016/2017**

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

**AFT 3352:FRIUTS AND VEGETABLE TECHNOLOGY**

**DATE: JUNE 2017**

**TIME: 2 HOURS**

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

**QUESTION ONE (30 MARKS)**

- a) Define the term 'nectar' in the context of fruit juice processing. (1 Mark)
- b) State three categories of vegetables that have to undergo a higher heat treatment than normal during canning. (3Marks)
- c) State four post- harvest changes caused by endogenous enzymes in fruits and vegetables. (4 Marks)
- d) State four major factors useful in controlling the activity of these enzymes. (4 Marks)
- e) State three types of processes applied in drying fruits and vegetables citing one example of a dryer used in each. (6 Marks)
- f) Write short notes on the following vegetables products.
  - i) Bulk sauerkraut (2 Marks)
  - ii) Canned sauerkraut (3 Marks)
- g) Explain the rationale of adding calcium salts to fruits and vegetables prior to canning or freezing. (4 Marks)
- h) State three disadvantages of quick freezing fruits and vegetables by direct immersion. (3 Marks)

**QUESTION TWO (20 MARKS)**

- a) Discuss the factors that influence the action of chemical food preservatives in fruits and vegetables preservations. (12 Marks)
- b) Describe the general sequence of operations employed in thermal preservations of fruits and vegetables. (8 Marks)

**QUESTION THREE (20 MARKS)**

- a) Discuss the various defects and spoilages that may be observed in canned fruits and vegetables. (10 Marks)
- b) Give a highlight of the major classifications of vegetables based on their morphological features citing specific examples in each. (10 Marks)

**QUESTION FOUR (20 MARKS)**

- a) Describe the unit operations employed in potato crisps processing. (20 Marks)