



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 3353: BEVERAGE TECHNOLOGY

DATE: JUNE 2017

TIME: 2 HOURS

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

QUESTION ONE (30 MARKS)

- a) Define the following terms.
 - i) Gin (1 mark)
 - ii) Hordein (1 mark)
- b) Highlight the biochemistry of yeast fermentation leading to formation of two ethanol molecules from one glucose. (3 marks)
- c) Describe the disruption operation in tea processing. (4 marks)
- d) List three forms of fermentation important in food processing. (3 marks)
- e) Explain the use of thickeners as beverage ingredients and give two examples. (3 marks)
- f) Write short note following beer ingredients.
 - i) Yeast (5 marks)
 - ii) Hops (5 marks)
- g) Briefly describe the various ways of determining the quality of cocoa beans (5 marks)

QUESTION TWO (20 MARKS)

- a) Describe the coffee cherry. (10 marks)
- b) Discuss mixing operations in beverage processing. (10 marks)

QUESTION THREE (20 MARKS)

- a) Describe in brief the steps used in wine making. (5 marks)
- b) Using a flow diagram, describe the steps of processing purified drinking water.(15 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss the various colour defects likely to occur in green coffee. (20 marks)