



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:

**BACHELOR OF SCIENCE IN FOOD TECHNOLOGY AND
QUALITY ASSURANCE (BSFQ13S &BSFQ14S2)**

YEAR 3 SEMESTER 2

AFS 4311 :NON ALCOHOLIC BEVERAGES

PAPER II

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: Pick Date Select Month Pick Year

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of Choose No questions. Attempt Choose instruction.

QUESTION ONE

- a)** Explain how good agricultural practices (GAPs) influence the quality of raw material in plant based foods **(6 marks)**
- b)** Discuss the dangers of ineffective deaeration of fruit juices during processing. **(6 marks)**
- c)** Discuss the fermentation of tea as a process **(6 marks)**
- d)** Outline the changes that take place on the tea leaves during withering **(6 marks)**
- e)** Explain the main processes used for the control of water microbial quality **(6 marks)**

QUESTION TWO

- a) Explain the benefits of consuming tea (**6 marks**)
- b) Discuss the effects of the following variables during tea fermentation;
 - i. Oxygen supply (**3 marks**)
 - ii. Temperature (**4 marks**)
 - iii. Time (**4 marks**)
 - iv. pH (**3 marks**)

QUESTION THREE

Discuss the processing of instant coffee with aid of a flow diagram (**20 marks**)

QUESTION FOUR

Discuss the following steps of chocolate manufacture;

- i. Melangeuring (**5 marks**)
- ii. Refining (**5 marks**)
- iii. Conching (**5 marks**)
- iv. Tempering (**5 marks**)

QUESTION FIVE

- i. Discuss the **THREE** main ingredients in soft drink manufacture (**6 marks**)
- ii. Discuss cocoa bean processing (**10 marks**)
- iii. Explain **TWO** uses of cocoa butter (**4 marks**)