



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**

AFS 4308: SUGAR AND CONFECTIONERY TECHNOLOGY

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2HOURS

DATE: 11May2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question ONE

(a) Define:

- | | |
|-----------------|---------|
| (i) Cube Sugar | (1mark) |
| (ii) Corn Syrup | (1mark) |
| (iii) Molasses | (1mark) |

(b) (i) Differentiate THREE varieties of flavor used in confectionery (3marks)

- (ii) Describe TWO types of sugar-boiled confectionery (4marks)
(iii) Outline THREE functions of Gums in confectionery (3marks)

(c) Describe the following reactions of sugars:

- (i) Enzyme hydrolysis (2marks)
(ii) Caramelization (2marks)
(iii) Fermentation (2marks)

(d) Briefly describe how invert sugar is obtained (5marks)

- (e) (i) Explain the multiple sweetener approach (3marks)
(ii) Outline THREE advantages of using artificial sweeteners (3marks)

Question TWO

Outline the manufacture of refined cane sugar (20marks)

Question THREE

- (a) Explain the processing of jaggery (10marks)
(b) Outline the processing of honey (10marks)

Question FOUR

- (a) Discuss the crystallization of sugar (10marks)
(b) Outline the manufacture of chocolate confectionery (10marks)

Question FIVE

- (a) Discuss FIVE ingredients used in the manufacture of flour confectionery (10marks)
(b) Outline the cookie making process (10marks)