



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) | Brown Sugar | (1mark) |
| (ii) | Caramel Sugar | (1mark) |
| (iii) | Cane Syrup | (1mark) |

(b) Outline FIVE factors affecting crystallization of sugar (5marks)

(c) Describe the following properties of sugars:

- (i) Solubility (2marks)
- (ii) Melting point and decomposition by heat (2marks)
- (iii) Acid hydrolysis (2marks)

(d) (i) Describe, with examples, THREE types of artificial sweeteners (6marks)

(ii) Outline THREE properties of ideal artificial sweeteners (3marks)

(e) (i) Outline THREE functions of shortening used in pastries (3marks)

(ii) Describe, with examples, TWO types of confectionery (2marks)

(iii) Outline TWO disadvantages of confectionery products (2marks)

Question TWO

Outline the manufacture of raw cane sugar (20marks)

Question THREE

(a) Explain the processing of beet sugar (10marks)

(b) Discuss the manufacture of High Fructose Corn Syrup (10marks)

Question FOUR

(a) Discuss FIVE ingredients employed in the manufacture of confectionery (10marks)

(b) Outline the manufacture of Crystalline confectionery (10marks)

Question FIVE

(a) Discuss the QC, packaging and storage of confectionery products (10marks)

(b) Outline the manufacture of pastries (10marks)