



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2015/2016

THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR  
OF SCIENCE IN FOOD SCIENCE AND TECHNOLOGY

**AFT 3330: SUGAR AND CONFECTIONERY TECHNOLOGY**

**DATE: NOVEMBER 2015**

**TIME: 2 HOURS**

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

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### QUESTION ONE (30 MARKS)

a) Briefly explain what you understand by the following:

(i) Mill extraction.

(ii) Boiling house recovery.

(iii) Overall recovery.

(iv) Dark chocolate.

(v) Pol.

(vi) Mixed juice.

(6 Marks)

b) Distinguish between the following:

(i) Last mill juice and last expressed juice.

(ii) Brix and pol.

(iii) Imbibition and dilution.

(iv) Bagasse and fiber.

(v) Primary and secondary juice.

c) Chocolate is good for you. Explain this statement.

(4 Marks)

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- d) List five factors that affect mill capacity in a sugarcane industry. (5 Marks)
- e) Chocolate is almost unique as food in that it is solid at room temperatures yet it melts easily within the mouth. Explain this statement. (5 Marks)

**QUESTION TWO (20 MARKS)**

Discuss the various methods of sugarcane juice clarification. (20 Marks)

**QUESTION THREE (20 MARKS)**

- a) Describe the changes that take place during conching in chocolate manufacture. (10 Marks)
- b) Write short notes on the following:
- (i) Chocolate milling.
  - (ii) Chocolate crumb. (10 Marks)

**QUESTION FOUR (20 MARKS)**

- a) With the aid of a flow diagram, describe the three stage sugar boiling process. (10 Marks)
- b) Discuss affination of raw sugar and outline the process operations which follow it. (10 Marks)