

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
FOOD SCIENCE AND TECHNOLOGY**

FOST 344: SUGAR AND CONFECTIONERY TECHNOLOGY

STREAMS: BSC FOST

TIME: 2 HOURS

DAY/DATE: MONDAY 05/07/2021

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS:

- **Answer ALL questions in section A and any other TWO questions in section B.**

SECTION A (30 MARKS)

1. Explain the differences between soft ball and hard to crack temperature in sweet confectioneries. (4 marks)
2. (a) Briefly describe the common defects in chocolate bar and explain solutions to address the defects. (5 marks)
- (b) Explain the importance of sugar in the food industry. (4 marks)
3. Describe the production process of glucose syrup from raw Irish potatoes. (8 marks)
4. (a) Briefly describe the importance of honey byproducts. (4 marks)
- (b) Outline the differences between sugar beet and sugar cane as they are commonly used in sugar production. (5 marks)

SECTION B (40 MARKS)

5. (a) Discuss the applications properties of confectionery syrup in food industries. (10 marks)
- (b) Describe the production of white sugar from raw sugar beet. (10 marks)

6. (a) Discuss factors that affect the quality of sugar processed at the sugar industry. (10 marks)
- (b) Explain quality control parameters to be implemented in a honey processing industry. (10 marks)
7. (a) Describe the production of chewing gum and highlight the role of ingredients. (10 marks)
- (b) Discuss measures the government should impose to mitigate deficit of sugar production. (10 marks)
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