

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2020/2021**

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

**AFS 2307: SUGAR AND CONFECTIONARY TECHNOLOGY**

**DATE: AUGUST 2021 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER ALL QUESTIONS IN** SECTION A **(COMPULSORY) AND ANY OTHER TWO QUESTIONS IN** SECTION B

**SECTION A: 30 MARKS**

1. Describe compound imbibition process for the recovery of residual juice from sugar cane bagasse. (6 marks)

2. Describe the cold and hot liming techniques for cane juice including their advantages and disadvantages. (6 marks)

3. Explain the three graining techniques that are applied for the crystallization of sugar. (6 marks)

4. Explain the changes that occur both in the pulp and bean of cocoa during fermentation. (6 marks)

5. Describe the manufacturing processes for high and low boiled sweets. (6 marks)

**SECTION B: 40 MARKS**

6. Discuss all the stages involved in the manufacture of chocolate. (20 marks)

7. Describe the manufacture of dextrose and isoglucose from starch with the aid of a clearly labeled flow diagram. (20 marks)

8. Compare and contrast the phosphatation and carbonation processes applied in the refining of sugar. (20 marks)