

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

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

FOST 343: NON-ALCOHOLIC BEVERAGES

STREAMS: BSC (FOST) Y3S1

TIME: 2 HOURS

DAY/DATE: MONDAY 29/03/2021

11.30 A.M. – 1.30 P.M.

INSTRUCTIONS:

SECTION A 30 MARKS – ANSWER ALL QUESTIONS

1. Explain the role of sulphuric acid and benzoic acid in the manufacturing process of soft drinks. (1 mark)
2. (a) Explain these different types of water. (2 marks)
 - (i) Mineral water
 - (ii) Table water
 - (iii) Carbonated water
 - (iv) Flavoured water(b) Describe the steps involved in the processing of drinking water. (5 marks)
3. Explain the following terms as used in cocoa production. (4 marks)
 - (i) Cacao
 - (ii) Cocoa
 - (iii) Chocolate
 - (iv) Cocoa butter
4. (a) Coffee is a popular beverage all over the world, explain some of the substitute that have been developed to cater for its low supply. (4 marks)
- (b) The bitter taste of coffee can be masked using different methods, explain these.

- (5 marks)
5. (a) Explain red leaf as a defect of tea leaves after picking. (5 marks)
- (b) Explain how the grading of black tea is obtained. (4 marks)

SECTION B (40 MARKS) ANSWER ANY 2 QUESTIONS

6. (a) Explain the steps involved in chocolate production from cocoa powder. (10 marks)
- (b) Discuss the different types of chocolate based on use. (5 marks)
- (c) Give a recommendation for the material used in packaging chocolate giving reasons. (5 marks)

7. (a) Discuss the changes that take place during coffee roasting. (10 marks)
- (b) Explain the processing of wet coffee from harvesting to drying. (5 marks)
- (c) Discuss the following different types of coffee. (5 marks)
- (i) Instant coffee
 - (ii) Decaffeinated coffee
 - (iii) Treated coffee

8. (a) Explain the main steps in tea processing. (10 marks)
- (b) Discuss the changes that take place during tea fermentation. (6 marks)
- (c) Explain the different types of tea based on the method of manufacture. (4 marks)
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