

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
SCIENCE IN FOOD SCIENCE & TECHNOLOGY

FOST 343: NON-ALCOHOLIC BEVERAGES TECHNOLOGY

STREAMS: FOST Y3S1

TIME: 2 HOURS

DAY/DATE: FRIDAY 8/12/2017

2.30 P.M - 4.30 P.M.

INSTRUCTIONS:

- Answer ALL Questions in Section A and any TWO Questions in Section B

SECTION A

QUESTION ONE

Describe the firing of tea and highlight the process, its functions and equipment used discuss CTC in tea manufacture. [5 Marks]

QUESTION TWO

- (a) Describe carbonation using an equation and argue for or against the process. [5 Marks]
(b) Discuss the production of sparkling water. [5 Marks]

QUESTION THREE

- (a) Kamau consumed coffee after a meal. Describe the possible physiological effects of the consumption of coffee after meal. [5 Marks]
(b) Describe the formation of flavonoids illustrating their importance and stating the product in which they are formed. [5 Marks]

SECTION B: ANSWER ANY TWO QUESTIONS.

QUESTION FOUR

- (a) Discuss the mechanisms of antioxidant activity of tea. [10 Marks]
(b) The stimulating effect of tea is due to the presence of the alkaloid caffeine. However, portions of the populace prefer non-stimulating tea. Discuss three methods used in decaffeinating tea. [10 Marks]

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QUESTION FIVE

(a) On completing her FOST program at Chuka University, Mugo opted to venture into oolong tea manufacture. Discuss the possible protocol he would follow. [10 Marks]

(b) Describe the production of carbonated RTD beverage. [10 Marks]

QUESTION SIX

(a) State four polyphenols found in cocoa. Discuss polyphenols with reference to chocolate flavor quality and cognitive functions. [10 Marks]

(b) Describe the processing of decaffeinated instant coffee. [10 Marks]

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