University Examinations 2013/2014

THIRD YEAR, FIRST SEMESTER EXAMINATIONS FOR DEGREE OF BACHELOR OF
SCIENCE IN FOOD TECHNOLOGY
AND
THIRD YEAR, FIRST SEMESTER EXAMINATIONS FOR DEGREE OF BACHELOR OF
SCIENCE IN FOOD SCIENCE AND NUTRITION

AFS 2306: BEVERAGE TECHNOLOGY

DATE: APRIL 2014   TIME: 2 HOURS

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

QUESTION ONE – (30 MARKS)

(a) Explain the role of carbon dioxide in the manufacture of soda drinks. (4 Marks)

(b) Distinguish between natural withering and controlled withering. (6 Marks)

(c) Briefly discuss the three types of manufactured teas. (6 Marks)

(d) List the three types of wines based on colour and briefly explain how the colour is achieved during manufacture. (6 Marks)

(e) Outline three factors that influence the grading of coffee. (3 Marks)

(f) Briefly explain the removal of mucilage through fermentation during green coffee processing. (5 Marks)

QUESTION TWO – (20 MARKS)

(a) Briefly discuss the three main raw materials used in beer manufacture. (6 Marks)

(b) Write short note on the following terms as used in bear manufacture.

    (i)   Mashing (5 Marks)

    (ii)   Brewing (3 Marks)

    (iii)   Fermentation (3 Marks)

    (iv)   Chill haze (3 Marks)

QUESTION THREE – (20 MARKS)

   (a) Briefly describe post-abstraction treatment of bottled water.   (10 Marks)

   (b) With the aid of a diagram explain the kinetics of formation of theaflavins and thearubigins during tea manufacture.   (7 Marks)

   (c) What is a plucking standard in tea technology? Explain the difference between fine and coarse plucking.   (3 Marks)

QUESTION FOUR – (20 MARKS)

   (a) Explain why water pre-treatment and deaeration is necessary in soda processing.

                                                                                (5 Marks)

   (b) Describe the main processing steps in the manufacture of instant coffee.   (15 Marks)