



Uva Wellassa University
Faculty of Animal Science and Export Agriculture

BSc in Tea Technology and Value Addition

End Semester Examination - August/September 2014

Year II Semester I

Principles of Food Science TEA 233 - 2



Instructions

Answer **Four (04)** questions including question No. 01

No. of questions : Five (05)

No. of pages : Two (02)

Time : Two hours (02 hrs)

Total marks allocated : 100 %

Essay

Question 01

Write short notes on following topics.

- Freeze drying
- Blanching time
- Personal hygiene in food processing industry
- Chemical hazards of foods
- Complete proteins

(05 × 05 = 25 marks)

Question 02

a. 'Moment of adding Sodium metabisulphite (SMS) as a preservative is a critical step during the production of fruit cordial'. Discuss the statement.

(12 marks)

b. Give essential steps for preparation of mixed fruit cordial in a process flow chart.

(08 marks)

c. Briefly explain the use of Carboxymethyl cellulose in the production of ready to serve fruit juice beverages

(05 marks)

Question 03

During an experimental trial vertical flow cabinet dryer was used to dehydrate vegetables. After the proper initial preparation steps, the samples were kept in the dryer at 55 °C for four hours without disturbing them. However, finally recognize that the trial was not successful.

- a. Explain reasons for the failure. (12 marks)
- b. What should be the corrective measure in order to success in the next trial? (05 marks)
- c. Distinguish 'Sun drying' and Mechanical drying'. (08 marks)

Question 04

- a. Explain the factors to be considered during the selection of a factory site for food processing industry. (12 marks)
- b. 'Dead ends must be eliminated within a food processing plant'. Briefly explain the statement. (08 marks)
- c. Write two environmental factors that affect on the quality deterioration of foods. (05 mark)

Question 05

- a. During the production of tomato sauce, tomato pulp should be concentrated in order to get desired thickness. However, prolong heating reduces the quality of the final product. Hence, briefly explain the techniques use in industrial level to avoid the lengthen heating during the production of tomato sauce. (12 marks)
- b. Discuss the significance of water activity in food preservation. (08 marks)
- c. Briefly explain the retorting process in canning of fruits and vegetables. (05 marks)