

W1-2-60-1-6

 **JOMO KENYATTA UNIVERSITY**

 **OF AGRICULTURE AND TECHNOLOGY**

 **University Examinations 2012/2013**

 **YEAR IV EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SCIENCE AND NUTRITION**

**AFS 2409: FRUIT AND VEGETABLE TECHNOLOGY II**

## DATE: AUGUST 2012 TIME: 2 HOURS

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

**SECTION A (60 MARKS)**

1. Define the following terms:

 a) Cordial

 b) Leaker spoilage

 c) Orange essence

 d) Chutney

 e) Clarification (2 marks @)

2. Explain the importance of the following resettable processing operations:-

 a) Blanching of vegetables (4 marks)

 b) Salting or brining vegetables during pickling (4 marks)

 c) Drying potato slices during processing of potato crisps. (2 marks)

 d) Hot-breaking tomatoes during processing of puree. (4 marks)

3. Suggest possible causes of the following problems:

 a) Cloudiness in a jelly (7 marks)

 b) Mouldiness of dried mangoes. (3 marks)

4. Explain the causes of ‘black neck’ it tomato sauce and discuss measures that

 can be taken to avoid it. (10 marks)

5. You want to make 40 litres of squash having 35% total soluble solids from a fruit

 pulp containing 11% total soluble solids and a syrup of 60% strength. Calculate

 the amounts of pulp and syrup required. (6 marks)

6. Discuss the factors that influence the quality of frozen fruits and vegetables. (10 marks)

**SECTION B (40 MARKS)**

7. Discuss how the various steps during vegetable canning affect the quality of the

 final product. (20 marks)

8. Discuss the process for the industrial production of frozen concentrated orange juice.(20 marks)

9. Discuss the steps involved in processing potato crisps of high quality. (20 marks)