



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2009/2010

**FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SCIENCE (FOODS, NUTRITION AND DIETETICS)**

HFN 301: HUMAN NUTRITION

DATE: Monday 21st December 2009

TIME: 2.00pm – 4.00pm

INSTRUCTIONS:

SECTION ONE

Answer ALL questions in Section One

1. State the nutrient deficiencies that lead to the following disorders.

[4marks]

- i) Beri-beri
- ii) Rickets
- iii) Neural tube Defects
- iv) Keratomalacia

2. Compare the following

[4marks]

- i) Chromium and Vitamin B₃
- ii) Calcium and phosphorous
- iii) Osteomalacia and osteoporosis

3. Outline **two** advantages of food composition tables as used in dietary surveys. [2marks]
4. Iodine deficiency is one of the most common causes of poor health and development status in the developing world today. Outline 3 causes of the deficiency citing **three** intervention measures you would initiate to curb the problems. [6marks]
5. Processing influences the retention of B-group vitamins in foods. Explain this phenomenon using two cereals of your choice. [4marks]
6. Briefly explain **four** health benefits of dietary fibre to the human body. [8marks]
7. Briefly describe four ways in which each of the following play a protective role in human health. [8marks]
- i) anti-oxidants
 - ii) probiotics
8. The absorption of non-haeme iron is significantly influenced by various food components. Identify four such components suggesting two ways to counteract this negative influence. [6marks]
9. Excess consumption of fat and fat products is known to increase susceptibility to health problems. Explain three health problems they cause. [6marks]

SECTION B

Answer question ONE and any other one question in this section

1. As a District Nutrition Officer you are assigned to carry out a survey on Vitamin A deficiency in that District. Clearly describe the different disorders you would expect. [10marks]
2. Describe in details the manifestation of Vitamin B₃ deficiency. [10marks]
3. Giving specific examples, describe the mechanism by which drugs affect the individual's nutrient status. [10marks]