



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF HEALTH SCIENCES**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN PUBLIC  
HEALTH/COMMUNITY DEVELOPMENT**

**1<sup>ST</sup> YEAR 1<sup>ST</sup> SEMESTER 2018/2019 ACADEMIC YEAR  
KISUMU CAMPUS**

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**COURSE CODE: AFB 3111**

**COURSE TITLE: INTRODUCTION TO FOOD SECURITY**

**TIME: 2 HOURS**

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**Answer all questions in Section A and any other 2 questions in Section B**

**SECTION A (30 MARKS)**

1. Explain the following key pillars of food security; i) food access and ii) food availability (4 Marks)
2. Thiamine (Vitamin B<sub>1</sub>) is one of important vitamins required for the normal functioning of the body. Name two food sources of this vitamin and disease condition associated with its deficiency. (3 Marks)
3. Explain the differences between protein-energy malnutrition and micronutrient malnutrition (2 Marks)
4. Mention three diet related non communicable diseases (3 Marks)
5. Iron is one of the most important elements in nutrition and of fundamental importance to life. Name one function of iron in the body and one food source of the mineral (2 Marks)
6. Name three challenges faced by the Dairy industry in Kenya (3 Marks)
7. Drought and floods are common climate threats in Kenya impacting on food security, state three adaptive measures that you would propose to farmers to cope with drought. (3 Marks)
8. Enumerate any three ways used in the preservation of food. (3 Marks)

9. (a) State the distinction between poverty and hunger (1 Mark)

(b) Define the following terms; (i) income poverty and (ii) human poverty. (2 Marks)

10. Explain how evacuation of settlers from the Mau forest is likely to impact on food security in the neighbouring counties. (4 Marks)

### **SECTION B (40 MARKS)**

1. Food availability is an important pillar of food security. Discuss how science, innovation and technology have contributed to this pillar in Kenya (20 Marks)

2. Discuss 2 nutritional challenges and 2 strategies employed by the Kenya Government to address these challenges under the following 2 stages of human life; (20 Marks)

i) Maternal and newborn nutrition

ii) Early childhood nutrition

3. Effective National Food Control Systems is necessary to provide consumer protection and to ensure that all foods during production, handling, storage and distribution is safe, wholesome and fit for human consumption. Discuss the following key National Food Control Systems; (20 Marks)

(i) Food Law and Regulations

(ii) Food Control Management

(iii) Inspection Services and

(iv) Laboratory Services

4. Discuss how climate change has affected food availability in Kenya. (20 Marks)