



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY  
SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**

**FIRST SEMESTER FIRST YEAR EXAMINATION FOR THE DEGREE OF  
BACHELOR OF SCIENCE IN FOOD SECURITY 2020/2021 ACADEMIC YEAR**

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**COURSE CODE: AAB 2101**

**COURSE TITLE: Introduction To Food Security**

**EXAM VENUE:**

**STREAM: (BSc. Food Security)**

**DATE:**

**EXAM SESSION:**

**TIME: 2HOURS**

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**Instructions:**

- 1. Answer ALL questions in Section A (compulsory) and ANY TWO questions in Section B**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

**SECTION A [30 MARKS]**

**Answer ALL questions in this section**

1. State:

- a. One nutritional benefit of pumpkin seeds. **[1mark]**
- b. The nutritional benefit of zinc. **[2 marks]**
- c. Give three examples of low-nutrient foods. **[6marks]**

2. Table 1: Complete the following table. **[9marks]**

Nutrient	Food Source	Effect of deficiency (or lack of it)
Vitamin A		
Vitamin C		
Nicotinic acid		
Folic acid		
Calcium		
Iron		

3. Enumerate three different levels of physical activity in relation to total number of calories a person needs each day. **[3marks]**

4. Explain this statement in relation to food security: "What we see in the grocery store is a VULNERABLE perfection". **[5marks]**

5. What could be the effect of food insufficiency, when and where it is scarce? **[4marks]**

**SECTION B: [40 MARKS]**

**Answer ANY TWO questions from this section**

6 .i). Differentiate between food self-reliance and self-sufficiency strategies for attaining food security. **[8marks]**

ii). Enumerate the five categories of foods. **[5marks]**

iii). Give three examples of animal protein foods. **[3marks]**

iv). What are anti-toxidants and phytophenols. **[4marks]**

7.i). Why are some foods called energy foods? **[6marks]**

ii). Despite oils and fats being the best energy foods, what is their biggest disadvantage?

**[5marks]**

iii). What is basal metabolic rate (BMR)? **[3marks]**

iv). Explain how the right to food is protected. **[6marks]**

8.i). Provide a detailed analysis of the following statement: Food security is a condition related to the supply of food and individuals' access to it for normal growth and development and an active and healthy life. **[6marks]**

ii). How does the above differ from the definition according to UN (2000)? **[8marks]**

iii). Explain the following: individual or household food security. **[6marks]**