



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

**FIRST YEAR FIRST SEMESTER UNIVERSITY EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN FOOD SECURITY**

2017/2018 ACADEMIC YEAR

REGULAR

COURSE CODE: AFB 3111

COURSE TITLE: INTRODUCTION TO FOOD SECURITY

EXAM VENUE: ----- STREAM: BSc. (Food Security)

DATE: -----

EXAM SESSION: -----

TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in section A and ANY other 2 Questions in section B.**
- 2. Candidates are advised not to write on 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. a). Enumerate five possible changes in human health related to Climate Change. (5marks)
b). Name five causes of food insecurity. (5marks)
2. Briefly explain why hunger can lead to malnutrition and why absence of hunger does not imply absence of malnutrition. (6marks)
3. Enumerate three drawbacks of food processing. (3marks)
4. Explain three clinical symptoms for each of:
 - a). Kwashiorkor (3marks)
 - b). Marasmus (3marks)
5. Name three shocks that affect ability of a family to achieve food security. (3marks)
6. Groundnuts and soybeans are protein foods. However, the two foods offer another opportunity in food nutrition. Explain. (2marks)

SECTION B: (40 MARKS)
Answer ANY TWO questions from this section

7. a). Distinguish between the two food security strategies traditionally adopted by countries. (10marks)
b). State four reasons for the establishment of food industries. (6marks)
c). What is 'micronutrient malnutrition'? (4marks)
8. a). Distinguish between three food security concepts 'availability, accessibility and utilization. (8marks)
b). Name four greenhouse gases (GHG) and their anthropogenic sources. (6marks)
c). Discuss the causes and impact on health arising from reliance on less-healthy, more energy-dense food choices (6marks)
9. a). Explain why developing countries national food security does not require individual countries to achieve food production self-sufficiency. (4marks)
b). Name three basic types of malnutrition and five levels of malnutrition. (8marks)
c). Discuss the impacts of global warming on agriculture. (8marks)