



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

**FIRST YEAR FIRST SEMESTER UNIVERSITY EXAMINATION FOR DEGREE OF
BACHELOR OF SCIENCE IN FOOD SECURITY, BACHELOR OF SCIENCE IN
AGRI-BUSINESS MANAGEMENT AND BACHELOR OF SCIENCE IN SOIL
SCIENCE**

2022/2023 ACADEMIC YEAR

REGULAR

COURSE CODE: AEB 1103

COURSE TITLE: FARMING SYSTEMS AND RURAL LIVELIHOOD

STREAM: BSc. FOOD SECURITY, BSc. AGRIBUSINESS & BSc. SOIL SCIENCE

DATE:

EXAM SESSION:

TIME: 2 HOURS

Instructions

- 1. Answer ALL questions in Section A and ANY other 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 from this section.

1. (a) Define the following terminologies:
 - i. Farming systems (3 Marks)
 - ii. Livelihoods (3 Marks)
- (b) List FOUR factors that determine the choice of a farming system. (4 Marks)
2. i. Differentiate between livelihood strategies and assets. (4 Marks)
- ii. With examples, briefly describe FOUR categories of livelihood assets. (6 Marks)
3. About 3/4 (75%) of the world's poorest people live in rural areas and depend on agriculture as a source of livelihood.
 - i. Briefly describe FOUR fundamental roles of agriculture in poverty eradication. (4 Marks)
 - ii. Outline FOUR detrimental trends which have risen in relation to cash crops as an important aspect of production-consumption linkage. (6 Marks)

SECTION B [40 Marks]

Answer any two (2) Questions from this section.

4. (a) Discuss **FOUR** drivers of farming systems evolution in Sub-Saharan Africa. (8 Marks)
- (b) Describe the following Sub-Saharan farming systems:
 - i. Irrigated farming system (4 Marks)
 - ii. Forest-based farming system (4 Marks)
 - iii. Maize Mixed Farming System (4 Marks)
5. Assume that you have been appointed as an officer in charge of the Siaya County Livelihood Program.
 - i. Describe FOUR principles that will guide you in designing appropriate and sustainable livelihood interventions for the local community. (8 Marks)
 - ii. Differentiate between vulnerability and poverty. (4 marks)

- iii. Suggest and discuss FOUR policy interventions that can address the local community's vulnerability to livelihood shocks and poverty. (8 Marks)
6. Agricultural production has a seasonal dimension in most places in the world. This seasonality has significant implications for low-income farmers attempting to secure adequate food supplies throughout the year. Many farmers suffer every year through a period of deprivation just before harvesting, often referred to as the "hungry season."
- i. Briefly explain any FOUR adverse effects on the nutritional well-being of low-income farm households associated with the hungry season. (8 Marks)
 - ii. Discuss how market price and seasonality of food and cash crops affect small-holder farms households. (6 Marks)
 - iii. Agriculture has been significantly impacted by climate change, identify, and briefly explain THREE aspects of climate change and how they affect agriculture. (6 Marks)

Best of luck