



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

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

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

2016/2017 ACADEMIC YEAR

REGULAR

COURSE CODE: AFB 3412

COURSE TITLE: GLOBAL PROGRAMS IN 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 from this Section.

1. Explain three indirect benefits accruing from ecosystem services. (3marks)
2. Briefly explain the meaning of cultural eutrophication (3marks)
3. Name two soil management techniques. (4marks)
4. Name two point and two nonpoint sources of pollution. (6marks)
5. Explain some of the key tools to grazing management as a means to sustainable animal husbandry. (4marks)
6. Giving examples, state the advantage of all season farming. (4marks)
7. Enumerate three common technologies in vertical farming. (3marks)
8. Which region of the earth is richest in biodiversity? (3marks)

SECTION B [40 MARKS]

Answer ANY TWO questions from this Section.

9. a). Discuss the phenomenon of feminization of poverty and its causes in Kenya.(12marks)
b).Discuss the ecological effects of eutrophication. (8marks)
10. a). Explain how urban agriculture can help promote sustainability of agriculture in the developing world. (8marks)
b). Discuss the following: The link between micronutrient deficiency and food security illustrates the challenges in using food properly. (8marks)
c). Explain the phrase “women carry half of the sky” on account of their gender.(4marks)
11. a). Discuss how nutrient pollution is a major cause of algal blooming and why it should be minimized. (8marks)
b). Discuss, giving examples, the advantages of vertical farming. (8marks)
c).Explain how poverty has affected the human capital from engaging in agriculture threatening food security. (4marks)