



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF AGRICULTURAL AND FOOD SCIENCES
SECOND YEAR FIRST SEMESTER UNIVERSITY EXAMINATION FOR THE
DEGREE OF BACHELOR OF SCIENCE FOOD SECURITY
2017/2018 ACADEMIC YEAR
REGULAR

COURSE CODE: ALS 3211

COURSE TITLE: AGRICULTURE AND ENVIRONMENTAL QUALITY

EXAM VENUE: LR 2

STREAM: BSc FOOD SECURITY

DATE: 19/12/17

EXAM SESSION: 9.00 – 11.00 AM

TIME: 2HOURS

INSTRUCTIONS

- 1. Answer ALL questions in section A and ANY other two questions in section B**
- 2. Candidates are advised 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

1. Discuss the effects of agricultural practices on the environment under the following topics

- (a) Pesticide usage (3 marks)
- (b) Fertilisers (3 marks)
- (c) Irrigation (3 marks)

2. Describe soil erosion under the following.

- (a) Rain drop erosion (2 marks)
- (b) Sheet erosion (2 marks)
- (c) Gully erosion (2 marks)

3. Explain the following processes used in organic waste management.

- (a) Composting (3 marks)
- (b) Biogas production (3 marks)
- (c) Mulching (3 marks)

4. Explain how the following improves agricultural quality.

- (a) Soil and water conservation (2 marks)
- (b) Environmental impact and assessment reports (2 marks)
- (c) Agroforestry (2marks)

SECTION B 40 marks. Answer any two questions.

5. Discuss the ways through which agricultural pollution can be minimized (20 marks)

6. Describe the role of aquaculture in the maintenance of wetlands (20 marks).

7. Explain how the following contribute to environmental quality (20 marks)

- (a) Crop residues
- (b) Polythene and plastic