



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF AGRICULTURE & FOOD SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
FOOD SECURITY**

SECOND YEAR FIRST SEMESTER 2017/2018 ACADEMIC YEAR

MAIN CAMPUS

COURSE CODE: AFB 3213

COURSE TITLE: CLIMATE CHANGE & FOOD SECURITY

EXAM VENUE: LR 2

STREAM: (BSc FOOD SECURITY)

DATE: 22/12/17

EXAM SESSION: 9.00 – 11.00 AM

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 the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

SECTION A (30 MARKS)

1. Define the following terms
(a) Weather
(b) Climate
(c) Climate change
(d) Global warming
(e) Food security (5 marks)
2. Briefly describe the following climate systems
(a) Atmosphere
(b) Hydrosphere
(c) Cryosphere
(d) Lithosphere
(e) Biosphere (10 marks)
3. Briefly explain any FIVE mitigating factors of climate change (5 marks)
4. List any FOUR components of the hydrosphere (2 marks)
5. Briefly explain the relationship between climate change and the following food security systems
(a) Food availability
(b) Food accessibility
(c) Food utilization
(d) Stability (8 marks)

SECTION B (40 MARKS)

6. Discuss in details the climate impact assessment tools (20 marks)
7. Discuss carbon sequestering, indicating clearly the global response indicators (20 marks)
8. Describe the process of strengthening community resilience and managing climate change (20 marks)
9. Discuss the adaptive responses of food security systems to climate change (20 marks)