



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN BIOLOGICAL SCIENCES
4th YEAR 2nd SEMESTER 2018/2019 ACADEMIC YEAR
MAIN CAMPUS - REGULAR

COURSE CODE:	SBI 3447	
COURSE TITLE:	AQUACULTURE	
EXAM VENUE:	BIO LAB	STREAM: (BIO)
DATE:	30/04/2019	EXAM SESSION:
9.00-11.00AM		
TIME: 2 HOURS		

Instructions:

- 1. Answer ALL questions in Section A and Any two 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: SHORT ANSWER QUESTIONS (30 MARKS)

1. Explain any three environmental impacts of cage farming in the open waters. (3 marks)
2. State one advantage each of any three systems of aquaculture production. (3 marks)
3. Explain the significance polyploids in aquaculture production. (3 marks)
4. Explain three advantages of Marker Assisted Selection over Artificial Selection. (3 marks)
5. Explain the significance of the following concepts in Aquaculture production (a) Feed Conversion Ratio (b) Proximate Analysis (c) Specific Growth Rate. (3 marks)
6. Explain factors considered when formulating a commercial fish feed. (3marks)
7. Name three plants of both economic and health significance in aquaculture. (3 marks)
8. State three advantages of the use of transgenic species in aquaculture. (3 marks)
9. Explain the challenges in culture production of marine invertebrates. (3 marks)
10. Advance reasons hindering production of Nile perch under captivity. (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Discuss the challenges of aquaculture production in Western Kenya. (20 marks)
12. Discuss five emerging issues of using non-native species for aquaculture. (20 marks)
13. Aquaculture has the potential to solve the common global dilemma of food insecurity. Discuss. (20 marks)
14. Discuss the advantages and disadvantages of aquaponics. (20 marks)