



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR SCIENCE IN
BIOLOGICAL SCIENCE**

4th YEAR 2nd SEMESTER 2018/2019 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE: SBI 3448
COURSE TITLE: LIMNOLOGY AND MARINE BIOLOGY
EXAM VENUE: BIO LAB STREAM: (BIO)
DATE: 03/05/2019 EXAM SESSION: 12.00-2.00PM
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**
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SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. Explain your understanding of lake morphometry. (3 marks)
2. Explain three types of thermal stratification in a Lake. (3 marks)
3. Describe two sources of nutrients in euphotic zone. (3 marks)
4. Explain Lindemans trophic dynamics of energy flow. (3 marks)
5. Describe three types of coral reefs. (3 marks).
6. Describe formation of ridges and trenches in oceans. (3 marks)
7. Explain salient features of estuaries, marine swamps and marshes. (3 marks)
8. Describe thermal properties of rivers from the source to the mouth. (3 marks)
9. Explain the three major factors determine nature of lake bottom. (3 marks)
10. Based on geomorphology, explain three types of streams. (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Write an essay on phytoplanktons and littoral zone communities in a lake. (20 marks)
12. Write an essay on marine habitat biota. (20 marks)
13. (a) Describe human impacts on marine ecosystems (10 marks)
(b) Discuss climate change and how it affects marine organisms (10 marks)
14. Using relevant examples, describe origin and distribution of lake basins. (20 marks)