



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**SECOND YEAR SECOND SEMESTER EXAMINATION FOR
THE DEGREE OF BACHELOR OF SCIENCE IN FISHERIES AND
AQUACULTURE AND BACHELOR OF SCIENCE IN AQUATIC
RESOURCE CONSERVATION & DEVELOPMENT
WITH INFORMATION TECHNOLOGY**

MAIN CAMPUS

**AFN 202: LAKE VICTORIA STUDIES I: ENVIRONMENT
AND ECOLOGY**

Date: 19th June, 2017

Time: 8.30 - 11.30am

INSTRUCTIONS:

- Answer ALL Questions in section A and any other THREE in section B.
- Illustrate your answers with labeled diagram where appropriate



Section A: Answer ALL questions from this section

(40 marks)

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1. Explain briefly any FOUR factors that have contributed to rapid colonization of sections of Lake Victoria by water hyacinth (4 marks)

 2. Using relevant examples, describe any FOUR ecological roles of wetlands in the Lake Victoria basin (4 marks)
 3. (a) Give the meaning of Ramsar Convention (1 mark)
(b) Explain briefly the THREE pillars of Ramsar Convention (3 marks)
 4. Describe briefly the conditions that characterize aquatic ecosystems with hypoxic conditions (4 marks)
 5. Name and explain briefly any TWO groups of aquatic macrophytes in Lake Victoria (4 marks)
 6. Explain briefly the factors that influence light penetration in the waters of Lake Victoria (4 marks)
 7. Explain briefly the ecological role of the zooplankton communities of Lake Victoria (4 marks)
 8. Overfishing is a major problem in East African great Lakes. Explain the management challenges that have contributed to this problem (4 marks)
 9. Explain briefly any TWO factors that have influenced establishment of aquatic macrophytes in Lake Victoria (4 marks)
 10. Explain briefly the meaning and significance of residence time in relation to pollutants entering Lake Victoria (4 marks)

Section B: Answer any THREE questions from this section

(30 marks)

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11. Describe any FIVE negative impacts of water hyacinth in reference to Lake Victoria (10 marks)
 12. What are socio-economic effects of the introduction of Nile Perch (*Lates niloticus*) in to Lake Victoria (10 marks)
 13. Briefly describe phytoplankton species composition before and after invasion of Lake Victoria by the water hyacinth (10 marks)

14. (a) Give the meaning and significance of adaptive radiation in the cichlids (2 marks)
- (b) Explain any FOUR conditions that have facilitated adaptive radiation among cichlids of the great Lake Victoria (8 marks)