



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2015/2016**

**SECOND YEAR FIRST SEMESTER EXAMINATIONS FOR THE  
DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL  
SCIENCE AND GEOGRAPHY & NATURAL RESOURCES WITH  
INFORMATION TECHNOLOGY**

**MAIN CAMPUS**

**NES 205: FRESH WATER ECOLOGY**

Date: 17<sup>th</sup> January, 2016

Time: 8.30 - 10.30 am

---

INSTRUCTIONS:

- Answer Question ONE and any other TWO Questions.



1. (a) Write briefly on the following:
  - i) Vertical stratification of lakes and ponds. (6mks)
  - ii) The processes that lead to plankton bloom. (6mks)

(b) Explain the ecological assumptions which underpin the misuse of rivers and streams. (5mks)

(c) Using examples, explain the ecological significance of major freshwater bodies. (6mks)

(d) Describe some plausible best practices in fish production in freshwater bodies. (8mks)
2. Examine critically the probable solutions to the challenges facing conservation of freshwater ecosystems. (20mks)
3. Discuss the characteristics and ecological features of slowly flowing waters. (20mks)
4. Describe the structure and ecological adaptations of the following communities:
  - (a) Plant inhabiting torrential forms; (14mks)
  - (b) Inhabitants between the rocks. (6mks)
5. Write briefly on:
  - (a) Origins of freshwater lakes; (8mks)
  - (b) Biotic communities of freshwaters. (12mks)
6. Discuss the following physico-chemical properties & characteristics as known in both lotic and lentic ecosystems:
  - (a) Pressure, density and buoyancy; (12mks)
  - (b) Dissolve oxygen (O<sub>2</sub>). (8mks)

