MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE IN FISHERIES AND AQUACULTURE AND BACHELOR OF SCIENCE INAQUATIC RESOURCES CONSERVATION & DEVELOPMENT WITH INFORMATION TECHNOLOGY

MAIN CAMPUS

AFN 409: HUMAN VERSUS-LAKE-SHORE ECOSYSTEMS INTERACTION

Date: 3rd December, 2016 Time: 8.30 - 11.30am

INSTRUCTIONS:

- Answer ALL Questions in Section A
- Answer Question NINE (9) and any other THREE in Section B.

Section A: Answer ALL questions from this section (40 marks)

1. Distinguish between the littoral zone and limnetic zone (4 marks)

2. a) List any FOUR human activities in the littoral zone (2 marks)
   b) Outline the ecological importance of the littoral zone (3 marks)

3. Distinguish between point source and non-point source of pollution (5 marks)

4. a) Define the term euphotic zone (2 marks)
   b) Explain how siltation is a threat to the littoral zone communities (4 marks)

5. Give an account for high species diversity in rocky beaches (4 marks)

6. Compare sandy substrates and muddy substrates in terms of their productivity and species diversity. (4 marks)

7. With reference to Lake Victoria, distinguish between endemic species and exotic species giving **THREE** examples in each case. (6 marks)

8. a) Explain the term resource use conflict (2 marks)
   b) Distinguish between negotiation and reconciliation as conflict resolution approaches (4 marks)

Section B:

Answer question No. 9 and any other THREE questions from this section (30marks)

9. Explain how human activities in the catchment impact on the Lake-shore ecosystems outlining how such impacts could be minimized. (9 marks)

10. Basing on height and influence of the tide, describe a typical zonation of a rocky inter-tidal zone (7 marks)

11. Discuss water level fluctuations in the littoral zone and how this impact on faunal population. (7 marks)

12. Describe the adverse conditions in the intertidal zones and explain the adaptations found in the organisms inhabiting these zones (7 marks)

13. Discuss eutrophication in aquatic systems outlining its causes and effects on littoral zone inhabitants (7 marks