



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**FOURTH YEAR FIRST SEMESTER EXAMINATIONS FOR
THE DEGREE OF BACHELOR OF SCIENCE AND BACHELOR
OF EDUCATION SCIENCE WITH INFORMATION
TECHNOLOGY**

MAIN CAMPUS

SZL 415: LIMNOLOGY

Date: 5th December, 2016

Time: 8.30 - 11.30 am

INSTRUCTIONS:

- Answer ALL questions in SECTION A and any TWO in SECTION B.
- Illustrate your answers with relevant examples and/or well labeled diagrams where appropriate.

SECTION A (40 MARKS) - ANSWER ALL QUESTIONS, 4 MARKS EACH.

- Q1. Briefly explain the terms: "water budget in lakes"
- Q2. Explain the development of frequent occurrence of hydrogen sulphide (H_2S) in some aquatic environments.
- Q3. Briefly outline the key steps in paleolimnological studies.
- Q4. State any four advantages of 'Water as a convenient habitat for many organisms'.
- Q5. Briefly outline the possible water circulation patterns in lakes.
- Q6. Provide grounds on which differences in lake types can be assessed.
- Q7. Briefly demonstrate and explain any two (2) thermal stratification scenarios in temperate lakes.
- Q8. Give any four (4) size groups of planktons, indicating size range and one example for each group.
- Q9. State the importance of vertical migration in zooplanktons.
- Q10. Briefly describe the causes of stress in the aquatic environment.

SECTION B (30 MARKS) – ANSWER ANY TWO (2) QUESTIONS, 15 MARKS EACH.

- Q11. Discuss the impact of watershed operations on the adjoining water bodies.
- Q12. Using specific organism examples, explain the importance of physico chemical parameter studies in the aquatic environment.
- Q13. Discuss the Winkler Method as presently applied in the water quality analyses.
- Q14. Discuss the impact of agricultural operations on the aquatic environment.