

UNIVERSITY OF RUHUNA

FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY

Academic Year 2023/2024

Bachelor of Science Honors in Fisheries and Marine Sciences Degree/
Bachelor of Science Honors in Marine and Freshwater Sciences Degree

Level I, Semester-II Examination –April/May 2025

LIM 1212: Physical and Chemical Limnology -Theory

Time: 1 ½ hour

Answer any 03 questions.

1. Briefly describe the change of vertical oxygen distribution patterns of oligotrophic and eutrophic dimictic lakes due to seasonal mixing process. (100 marks)
2. Graphically show the vertical distribution patterns of dissolved ammonium and nitrate in stratified oligotrophic and eutrophic lakes, and discuss the possible reasons for the relationship between the distribution patterns of these two ions. (100 marks)
3.
 - i. Graphically illustrate the zones of the lake ecosystem according to light and temperature distributions. (20 marks)
 - ii. Briefly discuss the ecological significance of light distribution in freshwater ecosystems. (30 marks)
 - iii. Write an account on “Colour in natural waters”. (50 marks)
4. Write short notes on the following.
 - i. Heat of Lake sediment (25 marks)
 - ii Winter stratification (25 marks)
 - iii. Surface waves (25 marks)
 - iv. Long standing waves (25 marks)

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