



UNIVERSITY OF RUHUNA
FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY
Academic Year 2022/2023

**Bachelor of Science Honours in Fisheries and Marine Sciences Degree/ Bachelor of
Science Honours in Marine and Freshwater Sciences Degree**

Level IV Semester I Examinations – April / May 2024

OCG 4162: Advanced Physical Oceanography

Time: 02 Hours

Section II

Answer only two (02) questions.

Time: 01 Hour / 50 Marks

- 1) Write short notes on the following.
 - a) Indo Pacific Warm Pool (IPWP) (8 marks)
 - b) Equatorial thermocline (7 marks)
 - c) El Niño Southern Oscillation (ENSO) (10 marks)

- 2) How do mixing processes in the upper ocean affect different aspects of the ocean, including its physical, chemical, and biological properties?

(25 marks)

- 3) In the tropical ocean, radiative and turbulent heat fluxes dominate the mixed layer temperature tendency $\left(\frac{\partial T}{\partial t}\right)$. Discuss this statement.

(25 marks)

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