



UNIVERSITY OF RUHUNA
FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY

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

Level III Semester II Examination – October/ November 2024

OCG 3292 Ocean Modelling

Time: 2 hours

Answer only four (04) questions

- 1)
 - a) What is a climate model? – **5 marks**
 - b) What are the sub-models of a climate model? – **5 marks**
 - c) Briefly explain the importance of ocean modelling. – **15 marks**

(25 marks)

- 2) Write short notes on the following.
 - a) Navier-Stokes equation – **12.5 marks**
 - b) Model grids – **12.5 marks**

(25 marks)

- 3)
 - A) Discuss, with relevant examples, the critical role of observational data in ocean modeling.
or
 - B) Explain the importance of initial conditions in ocean modelling.

(25 marks)

- 4) Although there has been good progress in climate modeling, there are still limitations and challenges. Justify this statement by focusing on ocean models.

(25 marks)

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