



UNIVERSITY OF RUHUNA

FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY

Academic Year 2022/2023

Bachelor of Science Honours in Marine and Freshwater Sciences Degree

Level III Semester II Examination – October-December 2024

OCG 3272 –Paleoceanography and Paleoclimatology

Time: 02 hours

Answer any Four (04) of the following questions

1.
 - i. Describe the impact of orogenesis on global climate with relevant examples. (10 marks)
 - ii. Explain how plate configuration has influenced global climate change, using an example. (15 marks)
2.
 - i. Briefly explain two corrections required for radiocarbon results. Your answer needs to explain why and when the corrections are needed. (10 marks)
 - ii. Discuss the suitability and limitations of different paleo precipitation proxies. (15 marks)
3.
 - i. Briefly discuss the proxies used to understand the upwelling productivity changes in the past. (10 marks)
 - ii. Discuss the main forcing mechanisms of the Indian Monsoon. (15 marks)
4.
 - i. Using an example, briefly discuss the influence of climate change on ancient civilization. (10 marks)
 - ii. How did the sea level changes influence human evolution? (15 marks)
5. Write short descriptions on i) Paleocene-Eocene Thermal Maximum and ii) Snowball Earth. (25 marks)
6. Write short notes on the following
 - i. The Influence of Sunspot Changes on Historical Climate Events
 - ii. A major climate event triggered by a volcanic eruption
 - iii. Interglacial Sea level changes in the Indian Ocean
 - iv. Use of speleothems in understanding precipitation changes(25 marks)

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