



UNIVERSITY OF RUHUNA
FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY

Academic Year 2023/2024

Bachelor of Science Honours in Marine and Freshwater Sciences Degree

Level II Semester I Examination – October/November 2024

OCG 2111: Tectonics and Ocean Basins

Time: 1 hour

PART B

Answer any one of the following questions

1.
 - i. Provide a detailed description of the evolution of the Indian Ocean from its formation as part of Gondwana to its present configuration, including schematic diagrams where appropriate. (25 marks)
 - ii. Name two hotspots in the Indian Ocean. (05 marks)
 - iii. Briefly explain the role of hotspots in the evolution of new ocean basins. (10 marks)
 - iv. Lacustrine (lake) sediments are among the oldest sediments found in certain ocean basins. Providing relevant present-day examples, explain how lacustrine sediments get into ocean basins. (10 Marks)

2. Write short notes on any five (05) of the following.
 - i. Life cycle of ocean basins.
 - ii. Supercontinent cycle
 - iii. Types of sedimentary basin and their formation and tectonic setting.
 - iv. Ninety Easy Ridge.
 - v. Types of plate boundaries. Give field examples for each type.
 - vi. Black smokers vs. white smokers

(10 marks *05 = 50 Marks)

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