



UNIVERSITY OF RUHUNA

FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY

Academic Year 2021/2022

Bachelor of Science Honours in Marine and Freshwater Sciences Degree

Level III Semester II Examination – October/November 2024

OCG 3261 – Indian Ocean and Bengal Fan

Time: 01 hour

Answer only Two (02) questions including question No. 01

1.

- i. Describe the major geologic events that have occurred during the opening and evolution of the Indian Ocean. Use labeled diagrams where appropriate to illustrate significant tectonic processes and features. (25 Marks)
- ii. Identify three hot spots in the Indian Ocean and key role they played in the formation and geological evolution of the Indian Ocean. (15 Marks)
- iii. What are the key aspects that make the Indian Ocean significant? (05 Marks)
- iv. What are the main objectives of the Indian Ocean Rim Association (IORA). (05 Marks)

2. Write short notes on the following

- i. Ninety-East Ridge.
- ii. Physiography of Bengal fan
- iii. Polymetallic nodules in the Indian Ocean
- iv. Afinity Nikini sea mount
- v. Age and types of sediments in the Bengal fan.

(10 marks * 05 = 50 Marks)

3.

- i. Describe the geological processes that led to the formation of the Indian Ocean Monsoon System. (20 Marks)
- ii. "Rapid warming over the tropical Indian Ocean influence the primary productivity of western Indian Ocean". Discuss the given statement. (30 Marks)

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