



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 I (Repeat) Examination – October /November 2024

OCG 31D2– Paleontology and Micropaleontology

Time: 1 ½ hours

Answer only three (03) Questions including Question No. 01

1.

- i. What is an index fossil? (05 marks)
- ii. Illustrate the structure of foraminifera (05 marks)
- iii. Provide a detailed description of the macrofossils found in limestone beds in the northwestern region of Sri Lanka. (10 marks)
- iv. What are two different methods to determine the depositional age of a fossiliferous limestone bed? (10 marks)
- v. What is the depositional age of above-mentioned limestone beds? (10 marks)

2.

- i. Compare the abundance and diversity of fossils in marine and terrestrial environments, focusing on how preservation conditions such as sedimentation rates, anoxic environments, and biological activity affect fossilization in each environment. (20 marks)
- ii. Discuss the implications for the fossil record and how these differences shape our understanding of past ecosystems. (10 marks)

3. Write short notes on the following topics.

- i. Significance of foraminifera in paleoceanography
- ii. major groups of microfossils
- iii. spores vs. pollen

(10 marks * 3 = 30 marks)

4.

- i. Can whole organisms be fossilized? Discuss the different processes of fossilization and give specific examples for each. (15 marks)
- ii. Describe the differences between organic-walled, calcareous-walled, and siliceous-walled microfossils, providing an example for each type? (15 marks)

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