



# UNIVERSITY OF RUHUNA

## FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY

Academic Year 2022/2023

Bachelor of Science Honours in Fisheries and Marine Sciences Degree/

Bachelor of Science Honours in Marine and Freshwater Sciences Degree

Level I Semester II Examinations - April / May 2024

OCG 1242 – Introduction to Geospatial Analysis

Time: 01 hour

### Part B

Answer any **Two (02)** of the following questions

1.

- a) Briefly describe how the spatial data interpolation is important in coastal ecosystem assessment. **(10 marks)**
- b) You have been appointed to create a database on the distribution of mangrove forests along the southern coast of Sri Lanka. Draw a detailed flowchart to show the steps you will follow to achieve the task. **(20 marks)**

2.

- a) “GIS is a promising solution for control of epidemics such as dengue fever”. Justify this statement with suitable examples from spatial analysis and spatial statistics tools **(10 marks)**
- b) Briefly describe the types of “attributes” in the Geographic Information System. **(20 marks)**

3. Write short notes on any **four (04)** of the following.

- a) Digital Elevation Models
- b) Shapefile format
- c) Map Overlay
- d) Database Management Systems (DBMS)
- e) Exploratory Spatial Data Analysis (ESDA)

**(04 x 7.5 = 30 marks)**

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