



UNIVERSITY OF RUHUNA
FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY
BACHELOR OF SCIENCE HONOURS IN FISHERIES AND MARINE SCIENCES
BACHELOR OF SCIENCE HONOURS IN MARINE AND FRESHWATER SCIENCES
LEVEL III SEMESTER I EXAMINATION – APRIL /MAY 2024
ACADEMIC YEAR 2022/2023
OCG 3132 – HYDROGRAPHY & NAVIGATION

Part 2 - Essay

Answer All Questions

All Questions Carry Equal Marks

- 1
 - a. Name three (03) aspects of uniqueness of hydrography and briefly describe one (01) of them. (10 marks)
 - b. Describe three (03) hydrographic activities involve in coastal hydrography? (15 marks)
 - c. Name four (04) applications of Side Scan Sonar (SSS) technique. (10 marks)
 - d. Comment why the planning is very important in Hydrography by giving the necessary reasoning? (15 marks)
- 2
 - a. Briefly explain the lead sounding technique in hydrography. (10 marks)
(You may use an appropriate sketch/equation to elaborate your answer).
 - b. Compare the singlebeam echosounder and Multibeam echosounder techniques. (10 marks)
 - c. Compare the manual tide gauge and automatic tide gauge for their pros and cons. (10 marks)
 - d. Elaborate why the tidal measurements are essential while conducting a bathymetric survey? (10 marks)
 - e. Name four (05) examples for various 'Aids to Navigation'. (10 marks)
- 3 *Write short notes on any five (05) topics from the followings.*
(You may use appropriate sketches to elaborate your answer).
 - a. True meridian. (10 marks)
 - b. Map projection. (10 marks)
 - c. Importance of hydrography for safe marine navigation. (10 marks)
 - d. Dead reckoning in navigation. (10 marks)
 - e. Rule of the Road. (10 marks)
 - f. Electronic Navigation Chart (ENCs). (10 marks)

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