



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 – OCTOBER/NOVEMBER 2024

OCG 3132 – HYDROGRAPHY & NAVIGATION

Answer All Questions

Time : 2 hours

- 1 a. Briefly describe one uniqueness of hydrography. (05 marks)
- b. Use one marine application and explain the importance of hydrography in relation to that. (07 marks)
- c. Name four (04) Hydrographic Positioning techniques. (08 marks)
- d. Explain why planning is very important in Marine operations. (05 marks)
- 2 a. Briefly explain the sounding pole technique used in hydrography. (05 marks)  
(You may use an appropriate sketch/equation to elaborate your answer).
- b. Describe the importance of Sound Velocity measurements in Echosounder depth measurements. (07 marks)
- c. Draw a figure and name the six (06) degrees of vessel motions. (08 marks)
- d. Name three (03) aspects to consider in choosing a suitable vessel for a marine survey. (05 marks)
- 3 a. Draw a sketch for diurnal and Semi-diurnal tide patterns. (05 marks)
- b. Name 03 types of tide gauges used in tidal measurement. (07 marks)
- c. Briefly explain the Moon's Phases and Tide relationships. (08 marks)
- d. Briefly explain the Tidal Analysis process. (05 marks)
- 4 Write short notes on any five (05) topics from the following.  
(You may use appropriate sketches to elaborate your answer).
- a. Magnetic Meridian. (05 marks)
- b. Sub-bottom Profiling. (05 marks)
- c. Underwater Positioning Technique. (05 marks)
- d. Course to Steer. (05 marks)
- e. Aids in Navigation. (05 marks)
- f. Nautical Chart. (05 marks)

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