

UNIVERSITY OF RUHUNA

BACHELOR OF SCIENCE HONOURS IN MARINE AND FRESHWATER SCIENCES DEGREE

BACHELOR OF SCIENCE HONOURS IN FISHERIES AND MARINE SCIENCES DEGREE

Level II Semester I Examination –August/ September 2018

OCG 2133 – Biological Oceanography

Time: 2 hours

Answer only Four (04) questions

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- 1) Describe the seasonal variation of phytoplankton production in temperate-boreal waters.
- 2) a) What is meant by “Iron fertilization in oceans”?  
b) What are the advantages and disadvantages of iron fertilization in oceans?  
c) Briefly describe the following methods used to measure primary production.
  - i) Radiocarbon labeling –  $^{14}\text{C}$  method
  - ii) Light and dark bottle method
- 3) a) List major reef building organisms.  
b) “Reef building organisms play an important role in protecting the shoreline from coastal hazards while maintaining the coastal geomorphology”. Justify this statement providing suitable examples.
- 4) “Depth and light penetration are the major factors which decide the zonation in the pelagic province.” Discuss.
- 5) Describe the common interspecific interactions in the marine ecosystems by providing suitable examples.
- 6) a) What are Red Tides?  
b) How and when do they occur?  
c) What are the effects of Red Tides?

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