

UNIVERSITY OF RUHUNA
BACHELOR OF SCIENCE IN FISHERIES AND MARINE SCIENCES DEGREE
Level II Semester I – 2017 July / August

OCG 2141 – Tectonics and Ocean Basins

Answer two of the following four questions

Time: 01 hour

1.
 - i. Compare and contrast oceanic and continental crust. (10 marks)
(include annotated sketches)
 - ii. What methods do geologists use to understand the structure of the earth. (15 marks)
 - iii. Describe the structure of the earth. (25 marks)

2.
 - i. Write a description of
 - a). convergent plate boundaries
 - b). divergent plate boundaries(include annotated sketches) (30 marks)
 - ii. Explain why the Pacific Ocean is shrinking whereas the Atlantic and Indian Oceans are expanding? (20 marks)

3.
 - i. Compare and contrast back-arc and fore-arc basins (15 marks)
 - ii. Describe a model used to explain the development of a back-arc basin. Use examples from research papers discussed in the class. (20 marks)
 - iii. Why are some continental margins passive whereas others are active? (15 marks)

4.
 - i. Explain how transform faults form. (20 marks)
 - ii. Write an essay on the formation and evolution of the Indian Ocean. (30 marks)

@@@@@@@@@@@@@@@@