



MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2015/2016

**SECOND YEAR FIRST SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR SCIENCE IN CLIMATE CHANGE AND
DEVELOPMENT WITH INFORMATION TECHNOLOGY**

MAIN CAMPUS

NCA 210: CLIMATE CHANGE AND COASTAL AND MARINE ECOSYSTEMS

Date: 14th January, 2016

Time: 8.30 - 10.30 am

INSTRUCTIONS:

- Answer question ONE and any other TWO questions.
- Sketch maps and diagrams should be used whenever appropriate.



1. a. Explain how Climate Change causes the following phenomena in the coastal and marine environment:
- i. Ocean acidification (4marks)
 - ii. Stormy weather (4marks)
 - iii. Moving homes of coastal and marine organisms (4marks)
 - iv. Increase in Sea Surface Temperature (SST) (4marks)
 - v. salinity (4marks)
- b. Explain the effects of climate risks on sea levels . (5marks)
- c. Explain how Climate Change affect vertical mixing up on biogenic elements. (5marks)
2. Discuss Climate Change Impacts on fish production in coastal and marine environment . (20marks)
3. a. Describe the pathway of the Global Conveyor Belt . (8marks)
- b. Explain how changes in the Global Conveyor Belt as a result of Climate Change may cause changes in coastal and marine ecosystems. (12marks)
4. Discuss how coastal and marine ecosystem might be affected by El Nino induced changes in plankton biomass. (20marks)
- 5 . Explain the effects of climate change in global water circulation. (20marks)
- 6 . Explain how climate change may affect the population of sea mammals. (20 marks)