



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

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

MAIN CAMPUS

NCA 209: CLIMATE CHANGE AND BIODIVERSITY

Date: 20th April, 2016

Time: 11.00 - 1.00 pm

INSTRUCTIONS:

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



NCA 209 : CLIMATE CHANGE AND BIODIVERSITY

Q1. a. Explain how changes in the following phenomena may affect biodiversity:

- i. Rising carbon dioxide and declining oxygen (4marks)
- ii. Rising atmospheric temperature (4marks)
- iii. Precipitation (4marks)
- iv. Salinity (4marks)
- v. pH (4marks)

b. Explain the importance of biodiversity to man (5marks)

c. Differentiate between **Impacts, Adaptation, and Mitigation** as used in Climate Change and biodiversity (6marks)

Q2. Explain the following climate change mitigation on biodiversity:

- a.** Reintroduction of species (7marks)
- b.** Species recovery plans (6marks)
- c.** Captive breeding (6marks)

Q3. Discuss the impact of climate change on the distribution of:

- a.** Polar bears (4marks)
- b.** Penguins (4marks)
- c.** Birds (4marks)
- d.** Coral reefs (4marks)

Q4. a. Discuss with specific examples the impact of Climate Change on fisheries. (10marks)

b. Explain how habitat fragmentation may impede species to adapt to changes in climate (10marks)

Q5. Discuss how projected change in climate will impact on ecosystems (20marks)

Q6. Explain the observed changes in the timing of biological events (phenology) for both terrestrial fauna and flora caused by climate changes. (20marks)