



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2015/2016**

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

**MAIN CAMPUS**

**NCA 206: CLIMATE CHANGE AND WATER RESOURCES**

Date: 20<sup>th</sup> April, 2016

Time: 2.30 - 4.30 pm

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**INSTRUCTIONS:**

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



**NCA 206: CLIMATE CHANGE AND WATER RESOURCES**

1. a. Explain how the following phenomena caused by Climate Change may impact the availability of water resources:
  - i. Rising sea levels (5marks)
  - ii. Melting glaciers (5marks)
  - iii. Increased frequency of floods (5marks)
  - iv. Prolonged droughts (5marks)
- b. Explain how Climate Change might affect the water quality (5marks)
- c. Explain how Climate Change might affect ground water recharge (5marks)
2. Discuss Climate Change Impacts on water resources demand in reference to African countries (20marks)
3. a. Define the term drought as used in Climate Change (4marks)
- b. Explain the causes of observed changes in droughts over the last one decade (8marks)
- c. Explain the projected changes in droughts as discussed by IPCC in AR4 (8marks).
4. a. Discuss the effect of climate change on stream flow. (10marks)
- b. Discuss how changes in water conditions due to Climate Change may affect aquatic biodiversity ecosystems (10marks)
5. Explain the impact of Climate Change on hydrological cycle (20marks)
6. Discuss the extent of water crisis in Africa (20marks)