



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

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

**MAIN CAMPUS**

**NCA 203:CLIMATE CHANGE IN THE TROPICS AND ARID AND  
SEMI-ARID ENVIRONMENTS**

Date: 19<sup>th</sup> January, 2016

Time: 8.30 - 10.30am

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**INSTRUCTIONS:**

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



1. (a) Differentiate between Torrid Zone and Temperate Zone. [4 marks]
- (b) Explain the unique characteristics of tropical land-use systems. [10 marks]
- (c) Describe the types of tropical sub-climates based on precipitation. [6 marks]
- (d) Explain the significance of deforestation of tropical forests on global climate change. [10 marks]
2. Describe the types of arid climates and types of semi-arid climates. [20 marks]
3. Discuss the livestock related interventions for mitigating against droughts within Kenya's semi-arid regions [20 marks]
4. Explain the climate change vulnerabilities associated with the following in Sub-Saharan Africa:
  - (a) Energy resources [12 marks]
  - (b) Crop yields [8 marks]
5. Examine the current and the year 2050 projected changes in climate within the tropical regions [10 marks]
6. Explain the adaptive features of plants inhabiting the Arid and Semi-Arid environments within the tropics. [20 marks]