



# MASENO UNIVERSITY

## UNIVERSITY EXAMINATIONS 2012/2013

### SECOND YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CLIMATE CHANGE & DEVELOPMENT WITH INFORMATION TECHNOLOGY (MAIN CAMPUS)

#### **NCA 208: CLIMATE CHANGE AND AGRICULTURE**

*Date: 19<sup>th</sup> July, 2013*

*Time: 2.30 – 4.30 p.m.*

---

#### **INSTRUCTIONS:**

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

## NCA 208: CLIMATE CHANGE AND AGRICULTURE

1. (a) Differentiate between shifting cultivation and rudimentary sedentary tillage. [6 marks]
- (b) Explain any **three** circumstances of climate change under which increase in crop yields could be recorded. [6 marks]
- (c) With reference to the agricultural sector, explain the meaning of climate change adaptation strategies. [8 marks]
- (d) Explain the trend and effects of agricultural weeds, pests and diseases in the next 50 years due to global climate change. [10 marks]
2. (a) Outline any five extreme weather events that affect agricultural production in Kenya. [10 marks]
- (b) Explain the measures that have been adopted by the government of Kenya to reduce the effects of floods on agricultural production. [10 marks]
3. 'Agriculture is a contributor to climate change and it is also vulnerable to the predicted impacts of climate change.' Discuss. [20 marks]
4. Discuss the adaptation strategies to the increased droughts and water scarcity which can be adopted by a crop farmer. [20 marks]
5. Examine the practical measures that can be incorporated into agricultural production activities to reduce the levels of green house gases in the atmosphere. [20 marks]
6. Discuss the main reasons why many rural communities in Kenya have not adopted alternative foods as adaptive strategy to food insecurity. [20 marks]