



## **MASENO UNIVERSITY**

### **UNIVERSITY EXAMINATIONS 2017/2018**

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

#### **MAIN CAMPUS**

#### **NCA 411: WATER MANAGEMENT IN A CHANGING WORLD**

Date: 7<sup>th</sup> March, 2018

Time: 8.30 - 11.30am

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#### **INSTRUCTIONS:**

- Answer Question ONE and any other TWO.
- Diagrams and illustrations should be used



**Q1.**

- a. Explain the meaning of residual climate risk for agricultural water management (5marks).
- b. Explain the effect of rising global temperature on agricultural water resources in different parts of the world (5 marks)
- c. Discuss the Global paradigm shift in water management (5 marks)
- d. Discuss the opportunities available to deal with storms and flooding in the face of climate change (5marks)
- e. Discuss how climate change may affect pasture production (5 marks)
- f. Briefly discuss the potential water resource conflicts between adaptation and mitigation (5marks)

**Q2.** (a) Discuss strategies which should be employed in Kenya to deal with water crisis at the face of climate change (20 marks)

**Q3.** (a) Discuss the importance of stakeholder's involvement in water resource management in the face of climate change (10 marks)

(b) Discuss the impact of climate change on water quality and quantity (10 marks)

**Q4.** Discuss the opportunities available to invest in water resource management to deal with water resources in the face of climate change. (20marks)

**Q5.** (a) Explain the components of catchment management strategies in Kenya (10marks).

(b) Explain how water management is a climate change mitigation measure (20marks)

**Q6.** (a) Discuss the policy guidelines outlined in the National Water Resources Management Strategy for Kenya. (14 marks)

(b) Outline ~~five~~ <sup>Six</sup> strategies ~~six~~ water management as given in the Kenya National Water Management Strategy (6 marks)