



MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2015/2016

**THIRD YEAR FIRST SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN EARTH SCIENCE
WITH INFORMATION TECHNOLOGY**

MAIN CAMPUS

NGA 303: WATER RESOURCES MANAGEMENT AND DEVELOPMENT

Date: 13th January, 2016

Time: 11.00 - 1.00 pm

INSTRUCTIONS:

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



NGA 303-WATER RESOURCES MANAGEMENT AND DEVELOPMENT

1. a) Assess the gains realized due to water sector reforms in Kenya. (8 marks)
- b) Examine the advantages and disadvantages of hydroelectric power system. (6 marks)
- c) Explain the significance of a river basin approach in water resource management. (10 marks)
- d) Examine the concept of conjunctive water use as a component of integrated water resource management. (6marks)
2. a) Discuss policy and implementation concerns that may arise in realization of community based water resources management. (8marks)
- b) Discuss the importance of gender mainstreaming in water resource management. (12marks)
3. Discuss the impact of climate and land use changes on an aquatic ecosystem. (20 marks)
4. Discuss the main shortcomings of Cap 372 of the Laws of Kenya in management of water resource. (20marks)
5. Examine the implementation of integrated flood management concept in Kenya. (20marks)
6. As a water resource manager, explain how you would sustainably use and manage the newly discovered groundwater resources in Turkana County. (20 marks)