



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

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

MAIN CAMPUS

NGA 310: IRRIGATION SYSTEMS

Date: 25th April, 2016

Time: 8.30 - 10.30 am

INSTRUCTIONS:

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

NGA 310: IRRIGATION SYTEMS

1. (a) Discuss five major challenges of surface irrigation systems in Kenya. 20 marks
(b) Examine the components of an irrigation system. 10 marks
2. Examine the concept of Soil-Plant-Atmospheric Continuum (SPAC). 20 marks
3. Explain the process of determining the irrigation water need for a given crop. 20 marks
4. Discuss the merits and demerits of using wastewater to irrigate crops 20 marks
5. Examine three methods used to produce an irrigation schedule for a crop. 20 marks
6. Discuss the management and conservation of water appropriate for surface irrigation systems. 20 marks