



# **MASENO UNIVERSITY**

## **UNIVERSITY EXAMINATIONS 2017/2018**

### **FOURTH YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE WITH INFORMATION TECHNOLOGY**

#### **MAIN CAMPUS**

#### **NES 406: WATER QUALITY ASSESSMENT & MONITORING**

Date: 19<sup>th</sup> February, 2018

Time: 12.00 - 3.00pm

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#### **INSTRUCTIONS:**

- Answer Question ONE and any other TWO



1. (a) Describe the standard elements common to all water quality monitoring assessment programs. (10marks)
- (b) Discuss the consequences of not protecting water towers in Kenya. (10marks)
- (c) Give examples of a typical water quality monitoring objectives that might be used as the basis for design of sampling networks. (10marks)
2. (a) Outline the potentials sources of errors with reference to chemical methods of assessing water quality. (8marks)
- (b) Describe the major processes that may influences water quality in various aquifers. (12marks)
3. (a) Write briefly on the categories of biological water monitoring. (9marks)
- (b) Discuss how you would assess the status of a swamp. (11marks)
4. (a) Explain a study plan that would be used to assess River Nyando at Muhoroni Sugar factory. (14marks)
- (b) Prepare a field note book template for recording observation data. (6marks)
5. (a) (i) Explain the term ecotoxicology. (2marks)
- (ii) Write short notes on the common environmental toxicants. (8marks)
- (b) Describe the structure of a water quality monitoring reports. (10marks)

