

**W1-2-60-1-6**

## JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

**UNIVERSITY EXAMINATIONS 2016/2017**

**YEAR II SEMESTER II EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE**

**SZL 2213: TECHNIQUES FOR ENVIRONMENTAL MONITORING**

**DATE: JUNE 2017 TIME: 2 HOURS**

INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS. USE ILLUSTRATIONS WHERE NECESSARY.

QUESTION ONE (COMPULSORY – 30 MARKS)

a) Define the term eutrophication and its effects on aquatic organisms

(5 marks)

b) Discuss briefly the significance of environmental monitoring (5 marks)

c) Explain the sources of radioactive materials in the environment

(5 marks)

d) Outline the most commonly used methods for collection of atmospheric particulate samples (5 marks)

e) Explain five types of provisioning services (5 marks)

f) Explain the advantages and disadvantages of chlorination as a water treatment method (5 marks)

QUESTION TWO

Discuss the commonly used chemical indicators of water and their significance (20 marks)

QUESTION THREE

a) Describe the various types of epidemiology (10 marks)

b) Discuss briefly the relationship between epidemiology and environment (10 marks)

QUESTION FOUR

Discuss the various types of regulation ecosystem services and their importance (20 marks)

QUESTION FIVE

Describe the most commonly used gaseous matter sampling techniques

(20 marks)