



# MACHAKOS UNIVERSITY

University Examinations for 2023/2024 Academic Year

**SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES**

**DEPARTMENT OF ENVIRONMENTAL SCIENCES**

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR**

**BACHELOR OF ENVIRONMENTAL SCIENCE**

**ENS 343: ENVIRONMENTAL POLLUTION AND ECOTOXICOLOGY**

**DATE:**

**TIME:**

**INSTRUCTIONS:** Answer Question **ONE** and any other **TWO** Questions

**QUESTION ONE (30 Marks)**

a) Using examples, explain any three emerging pollutants in Kenya (6 marks)

b) Explain the routes by which pesticides contaminate the environment (8 marks)

c) Discuss the ecological and human health risks associated with environmental pollution (16 marks)

**QUESTION TWO (20 MARKS)**

Using examples, discuss the main sources of heavy metals and explain their cycling in the soil-water-air-organism ecosystem

**QUESTION THREE (20 MARKS)**

Discuss how you can conduct a water quality monitoring for a given aquatic resource in your county

**QUESTION FOUR (20 MARKS)**

Discuss any two (2) regulations that govern environmental pollution control in Kenya

**QUESTION FIVE (20 MARKS)**

Discuss the major causes of environmental degradation in your county