



# MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN COMMUNITY RESOURCE MANAGEMENT

ECD 204: COMMUNITY WATER RESOURCES AND SANITATION MANAGEMENT

DATE: 13/8/2021

TIME: 2.00-4.00 PM

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## INSTRUCTIONS:

Answer question ONE and any other TWO questions

### QUESTION ONE (30 MARKS)

- a) Explain the meaning of the following terms
- i. Water quality assessment (2 marks)
  - ii. Cleaner production (2 marks)
  - iii. Incineration (2 marks)
  - iv. Waste management (2 marks)
  - v. Chemical Oxygen Demand (2 marks)
- b) Explain the relevance of 3Rs (Reduce, Reuse and Recycle) in waste management (6 marks)
- c) Describe the wastewater treatment process as practiced in Machakos Decentralized Treatment Facility. (14 marks)

### QUESTION TWO (20 MARKS)

Discuss point and non-point sources of water pollution in your home County and suggest viable mitigation measures to curb water pollution.

**QUESTION THREE (20 MARKS)**

Discuss the current waste management practices in Kenya and their implication to human health.

**QUESTION FOUR (20 MARKS)**

Using examples, discuss the role of various stakeholders in community water resources management in Kenya

**QUESTION FIVE (20 MARKS)**

Critically evaluate the relevance of Environmental Management and Co-ordination (Waste Management) Regulations of 2006 in Kenya