



MACHAKOS UNIVERSITY

University Supplementary Examinations For 2020/2021 Academic Year
SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

**THIRD YEAR SUPPLEMENTARY EXAMINATIONS FOR THE DEGREE OF
BACHELOR OF ENVIRONMENTAL STUDIES (ENVIRONMENTAL RESOURCE
CONSERVATION)**

ERC 321: WATER AND MARINE RESOURCES MANAGEMENT

DATE:

TIME:

INSTRUCTIONS: Answer question ONE and any other TWO

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Discuss the stream bed as an important habitat in stream ecosystems. (5 marks)
- b) Explain the major differences between aquatic and terrestrial ecosystems. (5 marks)
- c) Discuss the different types of industrial wastes affecting aquatic habitats in Kenya. (10 marks)
- d) As an aquatic scientist working at the Machakos County, discuss FIVE bioindicators which you would use for monitoring the environmental quality of aquatic ecosystems. (10 marks)

QUESTION TWO (20 MARKS)

Discuss the steps that should be considered when developing a water quality management plan for a Kenyan county.

QUESTION THREE (20 MARKS)

Discuss eutrophication as a water quality challenge affecting the ecological integrity of Lake Victoria, Kenya.

QUESTION FOUR (20 MARKS)

Land use planning is an important aspect in the management of aquatic ecosystems in Kenya.

Justify this statement.

QUESTION FIVE (20 MARKS)

Discuss the elements of sustainable watershed management.