



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)

University Examinations for 2015/2016 Academic Year

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES

**Third Year First Semester Examination for Degree in Bachelor in Environmental Studies
(Environmental Resource Conservation)**

ERC 321: WATER AND MARINE RESOURCES MANAGEMENT

Date:

Time:

INSTRUCTIONS: Answer Question **one** and any other **two** questions

1. a) Explain the meaning of the following terms
 - i. An ecosystem (2 marks)
 - ii. Hydrological cycle (2 marks)
 - iii. Eutrophication (2 marks)
 - iv. Heavy metal (2 marks)
 - v. Land use planning (2 marks)
 - b) Explain five physicochemical characteristics of water and their influence on productivity levels and survival of aquatic life (10 marks)
 - c) Distinguish between lotic and lentic ecosystems (4 marks)
 - d) Describe how you would determine heavy metal contamination in water (6 marks)
2. Explain the basic steps followed in land use planning (20 marks)

3. Discuss the impacts of human activities on aquatic environments in Kenya and their effects to human beings (20 marks)
4. Discuss two major categories of aquatic ecosystems in Kenya (20 marks)
5. Discuss the major challenges faced in the management of capture fisheries resources in Kenya and suggest possible ways in which they can be managed sustainably (20 marks)