



MACHAKOS UNIVERSITY

University Examinations For 2021/2022 Academic Year

**SCHOOL OF ENVIRONMENTAL STUDIES AND NATURAL RESOURCE
MANAGEMENT**

DEPARTMENT OF ENVIRONMENTAL SCIENCE

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL SCIENCES

ENS 449: COASTAL MARINE RESOURCES MANAGEMENT

DATE:

TIME:

INSTRUCTIONS: Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Describe the key physical and chemical characteristics of sea water. (20 marks)
- b) Briefly outline the key adaptations mangrove trees have for surviving the harsh coastal conditions. (10 marks)

QUESTION TWO (20 MARKS)

Detail the impacts experienced due to human utilization of marine and coastal resources

QUESTION THREE (20 MARKS)

Discuss the conditions creatures living in deep sea areas have to adapt to in order to survive

QUESTION FOUR (20 MARKS)

Using Kenya as an example, discuss the effectiveness of marine protected areas (MPAs) in management of coastal and marine resources.

QUESTION FIVE (20 MARKS)

Discuss the ecosystem services provided by ONE intertidal habitat of your choice.