



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENTAL SCIENCES

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR
BACHELOR OF ENVIRONMENTAL SCIENCE

ENS 449: COASTAL MARINE RESOURCES MANAGEMENT

DATE:

TIME:

INSTRUCTIONS: Answer question ONE and any other TWO

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the importance of kelp forests to humans. (5 marks)
- b) Outline five international conventions aimed at management of marine resources. (5 marks)
- c) '*Coral bleaching is a major conservation challenge for coral reef ecosystems*'. Discuss. (10 marks)
- d) Discuss five benefits of marine protected areas in Kenya. (10 marks)

QUESTION TWO (20 MARKS)

Discuss mariculture as a way of increasing productivity of fishery resources in Kenyan marine zones.

QUESTION THREE (20 MARKS)

Explain the impacts of pollution on marine biota in Kenya.

QUESTION FOUR (20 MARKS)

Discuss five physical environmental factors affecting aquatic life in the sea.

QUESTION FIVE (20 MARKS)

- a) Assuming that you are involved in an environmental programme aimed at conservation of nektonic organisms at the Kenyan marine ecosystem, discuss five groups of organisms which you would target. (10 marks)
- b) Discuss the composition of fauna found in deep-sea environments. (10 marks)