



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS 2023/2024
ACADEMIC YEAR**

FIRST YEAR SECOND SEMESTER

**SCHOOL OF NATURAL RESOURCES, ENVIRONMENTAL
STUDIES AND AGRICULTURE**

DIPLOMA IN TOURISM AND WILDLIFE MANAGEMENT

COURSE CODE: NDTW 123

COURSE TITLE: AQUATIC AND FRESH WATER ECOLOGY

DATE: 17/5/24

TIME: 1100-1300HRS

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section A and any other **THREE** in section B.

This paper consists of 2 printed pages. Please turn over

SECTION A (25 Marks)

1. Briefly describe the following, with examples in Kenyan aquatic ecosystems **(5 marks)**
 - a) Wetlands
 - b) Ramsar Convention
 - c) Aquatic Biome
 - d) Profound zone of lentic ecosystem
 - e) Brackish water
2. Describe **FOUR** marine and freshwater organisms **(4 marks)**
3. State two important dates that can be marked by a student taking Marine and Fresh water ecology as a course **(2 marks)**
4. Explain **FIVE** significance of mangrove forests in coastal ecosystems. **(5 marks)**
5. State ways in which you can aerate water to increase Dissolved oxygen (DO) **(3 marks)**
6. In each of the following cases, state TWO instruments that can be used to measure
 - a) Oxygen level in water **(2 marks)**
 - b) Water Transparency **(2marks)**
 - c) Water Density **(2 marks)**

SECTION B (45 Marks)

7. Discuss the importance of coral reefs in marine ecosystems. Explain the factors threatening coral reef ecosystems and propose conservation measures to protect them. **(15 marks)**
8. Describe the different types of marine and freshwater pollution. Discuss their sources, impacts on ecosystems, and potential solutions to mitigate pollution effects **(15 marks)**
9. Describe the process of eutrophication in freshwater ecosystems. Discuss its causes, impacts, and potential mitigation strategies. **(15 marks)**
10. In depth, explain how marine and fresh water ecosystem can contribute to the blue economy development. **(15 marks)**

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