



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF ENVIRONMENT AND HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
MARINE RESOURCE MANAGEMENT

BMRM 13S

AES 4103 : FUNDAMENTALS OF MARINE BOTANY

SEMESTER EXAMINATION

DECEMBER 2013 SERIES

2 HOURS

Instructions to candidates:

This paper consist of **FIVE** questions

Answer question **ONE** (compulsory) and any other **TWO** questions

QUESTION ONE

- a) Define the following terminologies:
- (i) Thallophytes (1mark)
 - (ii) Prokaryotic (1mark)
 - (iii) Eukaryotic (1mark)
 - (iv) Sea Weed (1mark)
 - (v) Sea Grass (1mark)
- b) (i) Briefly describe binomial nomenclature classification system (4marks)
- (ii) Outline TWO objectives of classification (2marks)
- c) (i) Explain the significance of Macro and Micro Algae community in Marine Ecosystem (4marks)
- (ii) Analyse the reasons as to why Macro and Micro Algae are classified as protocists

- as well as plantae (2marks)
- d) (i) Describe the characteristics of an Estuary Ecosystem (3marks)
- (ii) Outline the importance of this ecosystem (2marks)
- e) (i) Describe any TWO species of Sea grass (4marks)
- (ii) Explain TWO Biotic factors that regulates the growth of sea grass (4marks)

QUESTION TWO

Amina established her own aquarium in an effort to win the fishing market industry. Within four months, she noted unusual growth of aquatic weeds in the pond. As a consultant in marine science, advice Amina on the following:

- a) The necessary measure to be taken to control the growth (8marks)
- b) The likely causes of unusual high growth rate of the aquatic weeds (8marks)
- c) The consequences if the situation remain uncontrolled (4marks)

QUESTION THREE

- a) Compare and contrast between diatoms and dinoflagellates (8marks)
- b) Describe the Algal Bloom effect (6marks)
- c) Explain anthropogenic impacts on Beach Ecosystems (6marks)

QUESTION FOUR

A student of Marine Science was performing a study on the factors that regulates the growth and distribution of Sea grass. Describe the possible outcome for the following factors:

- a) Light (4marks)
- b) Nutrients (4marks)
- c) Oxygen (4marks)
- d) Temperature (4marks)
- e) Physical exposure (4marks)

QUESTION FIVE

- a) Discuss the impacts of Eutrophication on Coral reefs (10marks)
- b) Discuss adaptation of mangrove plants within their environments (10marks)