



# TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

**UNIVERSITY EXAMINATION FOR:**

DEGREE IN MARINE RESOURCE

BSMR 16S/YEAR1/SEMESTER 1

**AES 4103: FUNDAMENTALS OF MARINE BOTANY**

END OF SEMESTER EXAMINATION

**SERIES: DECEMBER 2016**

**TIME: 2 HOURS**

**DATE:** Pick Date Select Month Pick Year

## **Instructions to Candidates**

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **TWO** Section(s). Attempt question ONE (Compulsory) and any other TWO questions.

**Circle the correct answer in section A.**

---

## **Question one (30 marks)**

- a. Explain the meaning of the term “Dichotomous key” (1 mark)
- b. Use the taxonomic key in the table below to answer the questions that follow

	<b>Characteristic</b>	<b>Organism</b>
1a.	It has no legs.	Eel
1b.	It has more than two pairs of legs.	Go to 2
2a.	It has three body parts	Go to 3
2b.	It has two body parts.	Tick
3a.	It has a proboscis.	Butterfly
3b.	It has no proboscis.	House fly

How would you identify from the linear key above?

- i. The butterfly? (2 marks)
- ii. The tick? (2 marks)
- c. List two major characteristics that distinguish members of the kingdom Plantae from those of Animalia (4marks)
- d. What is mangrove zonation? List four factors that influence mangrove zonation (5 mark)
- e. List the various adaptations of dune vegetation to their environment (4marks)
- f. Explain the various adaptations of seagrasses to their environment (6 marks)
- g. Briefly explain the process of reproduction in the brown algae (6 marks)

**Question two (20 marks)**

Discuss the general body structure of diatoms, characteristics and their distribution

**Question three (20 marks)**

Discuss the various characteristics of the phylum Arthropoda

**Question four (20 marks)**

Discuss the characteristic of the mangrove community environment and their adaptations to the environments

**Question five (20 marks)**

Describe the corals under the following

- i. The distribution
- ii. The growth requirements
- iii. Types
- iv. Threats