



**TECHNICAL UNIVERSITY OF MOMBASA**

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**FACULTY OF APPLIED AND HEALTH SCIENCES**

**DEPARTMENT OF ENVIRONMENT AND HEALTH SCIENCES**

**UNIVERSITY EXAMINATION FOR:**

**THE DEGREE OF BACHELOR OF SCIENCE IN MARINE RESOURCE**

**BSMR 14S/YEAR2/ SEMESTER2**

**AAB 4207: PLANT STRUCTURE AND PHYSIOLOGY**

**END OF SEMESTER EXAMINATION**

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE: 1 Apr 2016**

**Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

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

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## **QUESTION ONE (COMPULSORY)**

- a. Define the following terms. 3 Marks
  - I. Vernalization.
  - II. Transpiration
  - III. Photoperiodism
- b. List THREE types of bacteria involved during nitrification in the nitrogen cycle. 3 Marks
- c. Differentiate between short day plant, long day plants and day neutral plants. 6 Marks
- d. List four hormones that regulate plant growth. 4 Marks
- e. Draw and label the plant cell. 4 Marks
- f. Differentiate between photosynthesis and respiration in plants. 6 Marks
- g. Outline 4 economic importances of the coastal dunes. 4 Marks

## **QUESTION TWO**

Plant growth and development is entirely a hormonal process. Elaborate. 20 Marks

## **QUESTION THREE**

Outline how plants perceive and respond to different tropic stimulations. 20 Marks

## **QUESTION FOUR**

- a) Discuss the process of photosynthesis 12mks
- b) Explain four factors that contribute to photosynthesis success 8mks

## **QUESTION FIVE**

- a) Define and explain the process of germination in plants.10mks
- b) Discuss the conditions that enhance germination in plants. 10mks