

TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied & Health Sciences

Department of Environment & Health Sciences

University Examination for the Degree of Bachelor of Science in Marine
Resource Management

BSMR 15S/YEAR 1/SEMESTER 2

Code: AES 4109: SURVEY OF PLANT KINGDOM PAPER 1

SEMESTER EXAMINATION

SERIES: MAY/2016

TIME: 2HRS

Instructions to Candidates

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions

This paper consists of one printed pages

QUESTION ONE (30 MARKS)

- a) (i) What is respiration? (1 mark)
(ii) Differentiate between aerobic and anaerobic processes of respiration (4 marks)
- b) (i) State the characteristics of non-flowering plants (2 marks)
(ii) Name the 3 groups of non-flowering plant (3 marks)
- c) (i) Algae is the dominant plant group in the marine environment. Name the two largest marine algal taxa (2 marks).
(ii) State the main characteristics of algae (3 marks)
- d) (i) State the characteristics of flowering plants (3 marks)
(ii) Name the 2 groups of flowering plants (2 marks)
- e) (i) Name the 4 divisions of the Plant Kingdom that are characterized by naked seeds (4 marks)
(ii) Which group represents the Angiosperms or flowering plants in the marine environment (1 mark)
- f) (i) What is photosynthesis? (1 mark)
(ii) Briefly explain how the products of photosynthesis are formed (4 marks)

QUESTION TWO (20 MARKS)

Describe the different types of asexual reproduction in plants (20 marks)

QUESTION THREE (20 MARKS)

Explain the process of photosynthesis in the following phases:

- a) Light reaction phase (10 marks)
- b) Dark reaction phase (10 marks)

QUESTION FOUR (20 MARKS)

The Amazon Basin is a good example of tropical rain forest in which flowering plants or Angiosperms dominate. Discuss the composition of this plant group with appropriate examples (20 marks)

QUESTION FIVE (20 MARKS)

Explain the origin of photosynthetic organisms like land plants (20 marks)