

CHUKA



UNIVERSITY

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**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE  
BIOLOGY**

**BOTA 232: PHYCOLOGY**

**STREAMS: B.SC (BIOL)**

**TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY 4/12/2019**

**2.30 P.M – 4.30 P.M**

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**INSTRUCTIONS**

**Answer all the questions in section A and any two in section B**

**Do not write anything on the question paper**

**Use illustrations where appropriate to enhance your answers**

**SECTION A: 30 MARKS**

1. Use an appropriate algal species as an example to explain how an individual organism can act as a gamete. Use diagrams to help explain. [5 marks]
2. Briefly describe the broad habitats of algae. [5 marks]
3. (a) With the aid of diagrams, describe briefly the types of flagella found among algal groups. [2 marks]  
(b) Explain the structure of a flagellum as viewed in cross section. [3 marks]
4. (a) Name the kingdom to which cyanobacteria belong. [1 mark]  
(b) Explain why cyanobacteria are no longer classified as algae. [4 marks]
5. Describe characteristics of the phaeophyte thallus that distinguish it from that of other algae. [5 marks]
6. Briefly describe the possible general adverse effects of dinoflagelates. [5 marks]

**SECTION B (40 MARKS)**

7. Discuss the economic importance of bacillariophytes. [20 marks]

8. Single out a specified genus as an example and use it to describe life cycle in phylum Rhodophyta. [20 marks]
9. Describe ;
- (a) Cell structure of Euglenophyta [10 marks]
- (b) Asexual reproduction in Euglenophyta. [10 marks]
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