

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN BIOLOGY

BOTA 232: PHYCOLOGY

STREAMS: B.Ed (Sc), B.Sc. (BIOL, CHEM) Y2S1

TIME: 2 HOURS

DAY/DATE: FRIDAY 14/12/2018

8.30 A.M - 10.30 A.M.

INSTRUCTIONS:

- Answer ALL questions in Section A and any TWO Questions in Section B
- Do not write anything on the question paper
- Use illustrations where appropriate to enhance your answers

SECTION A: [30 MARKS]

1. Describe, with aid of illustrations and giving an example of the algal genus in which each is found, **two** types of sex organs encountered among the algae. [5 Marks]
2. Describe the forms of thalli found among the algae. [5 Marks]
3. Illustrate the structures of the organ of locomotion of algae in cross section. [5 Marks]
4. With the aid of sketches, briefly describe *Spirogyra* and *Zygnema* ssp. [5 Marks]
5. Explain why cyanobacteria are no longer classified as algae. [5 Marks]
6. Citing an example, describe sexual reproduction in algae where cells act as gametes. [5 Marks]

SECTION B: [40 MARKS]

7. Describe reproduction in Bacillariophyta. [20 Marks]
8. Write an essay on the economic importance of Phaeophyta. [20 Marks]
9. (a) Define the term bioindicators. [2 Marks]
(b) Discuss the use of freshwater algae as bioindicators in aquatic systems. [18 Marks]

