JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL, PHYSICAL, MATHEMATICS AND ACTURIAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES

3rdYEAR 1st SEMESTER 2022/2023 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE:	**SBB1313**
COURSE TITLE:	**PHYCOLOGY**
EXAM VENUE:	**STREAM: (BSC)**
DATE:14/12/2022	**EXAM SESSION: 9.00-11.00AM**
TIME: 2 HOURS	

Instructions:

1. **Answer ALL questions in Section A and Any two questions in Section B**
2. **Candidates are advised not to write on question paper**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room**

SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. Differentiate between epiphytic and and epipelic algae (3 marks)
2. State three economic disadvantages of microalgae (3 marks)
3. State the uses of three cell wall extracts from algae (3 marks)
4. Draw and label the structure of a prokaryotic algal cell (3 marks)
5. State the distinguishing features of the Orders *Chrooccocales* and *Chamaesiphonales* (3 marks)
6. Describe the morphology of three types of colonial algae (3 marks)
7. Explain three forms of asexual reproduction in algae (3 marks)
8. Outline the nitrogen fixation process in heterocysts (3 marks)
9. Use diagrams to explain three life histories of *Chlorophyceae* (3 marks)
10. With the aid of a diagram, describe stratospore formation in Chrysophyta (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Describe the ecological roles of the blue-green algae (20 marks)
12. Discuss three orders of the ClassEuglenophyceae (20 marks)
13. Describe two classesof the Division Rhodophyta (20 marks)
14. Discuss algal use in industry (20 marks)