JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (BIOLOGICAL SCIENCES)

3rd YEAR 1st SEMESTER 2016/2017 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE: SBI 3317

COURSE TITLE: PHYCOLOGY

EXAM VENUE: CHEM LAB **STREAM: (BIO)**

DATE: 28/04/16 **EXAM SESSION: 2.00 – 4.00 PM**

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: ANSWER ALL QUESTIONS (30 MARKS)

1. Name the three components of the cell wall in Division Phaeophyta. (3marks)
2. Differentiate between Anisogamy and Oogamy in algae. (3 marks)
3. Briefly explain how algae helps in sewage treatment. (3 marks)
4. Briefly describe haplontic life cycle in algae. (3 marks)
5. Define the following;
   (i) Sublithic algae. (1 mark)
   (ii) Chasmolithic algae. (1 mark)
   (iii) Cryptoendolithic algae. (1 mark)
6. Briefly describe Coenobia in algae. (3 marks)
7. List the three components of the pigment phycobillins in algae. (3 marks)
8. Explain the commercial value of Carrageenan. (3marks)
9. Name any three filamentous algae. (3 marks)
10. State any three reasons to explain why the algae are studied first when considering evolutionary trends in the Plant Kingdom. (3marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

11. Discuss algae and their aquatic habitat. (20 marks)
12. Describe asexual reproduction in algae. (20 marks)
13. Discuss the Division Dinoflagellata. (20 marks)
14. Discuss Photosynthesis and light absorbing pigments in Cyanobacteria. (20 marks)