JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION (SCIENCE)

1ST YEAR 2ND SEMESTER 2013/2014 ACADEMIC YEAR

REGULAR

COURSE CODE: SBT 102

COURSE TITLE: SURVEY OF PLANT KINGDOM

EXAM VENUE:LAB 3 **STREAM: (BSc. Science)**

DATE: 21/8/14 **EXAM SESSION: 2.00 – 4.00PM**

TIME: 2 HOURS

Instructions:

1. **Answer question 1 (compulsory) in Section A and any other 2 questions in Section B .**
2. **Candidates are advised not to write on the question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A: ANSWER ALL QUESTIONS.

Question 1.

1. Outline three unique characteristics of vascular plants (3 marks)
2. Differentiate between dicotyledons and monocotyledons (3 marks)
3. Outline any three differences between prokaryotic and eukaryotic cells (3 marks)
4. State three processes involved in sexual reproduction of bacteria (3 marks)
5. Draw a well labeled diagram of a Chlamydomonas (4 marks)
6. State two importance uses of Xanthophyta (2 marks)
7. Outline three types of ascocarps in the group Ascomycotina (3 marks)
8. Describe three important functions of fungi (3 marks)
9. Outline the differences between crustose and foliose lichen growth forms (3 marks)

10 Briefly describe the three divisions of bryophytes (3 marks)

SECTION B: ANSWER ANY <u>TWO</u> QUESTIONS FROM THIS SECTION.

11 Discuss the divisions Cycadophyta, Ginkgophyta, Gnetophyta, Coniferophyta and Anthophyta in the spermatophytes (20 marks)

12 With the help of a diagram, discuss the homosporous and heterosporous life cycle of pteridophytes (20 marks)

13 Discuss the following divisions of vascular plants: Psilophyta, lycophyta, sphenophyta, pteridophyta (20 marks)

14 Discuss the evolutionary trends in lower plants (20 marks)