JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

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

1ST YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE: SBI 3111

COURSE TITLE: PLANT STRUCTURE AND FUNCTION

EXAM VENUE: LAB 3 **STREAM: (BIO)**

DATE: 19/04/16 **EXAM SESSION: 9.00 – 11.00 AM**

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. Explain the functions of a sepal in a flowering plant (3 marks)
2. (i) Define the plasmodesma (1 mark)
   (ii)Explain the function of plasmodesmata (2 marks)
3. Draw a well labeled diagram of a longitudinal section through a monocot seed (3 marks)
4. Briefly describe the palisade mesophyll of the leaf (3 marks)
5. Name any three accessory pigments in photosynthesis (3 marks)
6. Briefly describe the middle lamella of the cell wall (3 marks)
7. Differentiate between epigeal and hypogeal germination (3 marks)
8. Briefly describe the chloroplasts structure (3 marks)
9. State any three causes of seed coat induced dormancy (3 marks)
10. Outline any three problems experienced by xerophytes in their habitat (3 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

11. Describe fertilization in flowering plants. (20 marks)
12. Discuss the hydrophytes stating the hydromorphic characters in different groups. (20 marks)
13. Describe the membrane system in plant cells. (20 marks)
14. Describe the anatomy of dicot stem using a well labeled diagram. (20 marks)