



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

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

1st YEAR FIRST SEMESTER 2017/2018 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE:	SBI 3111
COURSE TITLE:	PLANT STRUCTURE AND FUNCTION
EXAM VENUE:	STREAM: (BIO)
DATE:	EXAM SESSION:

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**
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SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. a) Define meristematic tissues (1 Mark)
b) Briefly describe the different types of meristematic tissues. (3 Marks)
2. Distinguish between a herbaceous dicot and monocot stem. (6 Marks)
3. Describe any three anatomical differences between monocot and dicot plants. (3 Marks)
4. Describe the major regions of a root and the functions of each. (6 Marks)
5. Briefly discuss the transpiration-cohesion theory. (4 Marks)
6. Explain the linkage between matric potential and soil texture. (4 Marks)
7. Briefly describe any three photosynthetic pathways. (3 Marks)
8. State any three characteristics of an essential plant mineral. (3 Marks)
9. Briefly describe any two types of respiration in plants. (4 Marks)
10. Describe any three groups of plant nutrients on the basis of their biochemical and physiological functions. (3 Marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Discuss the cell types and tissues involved in plant support (20 Marks)
12. Discuss the differences between the dark and light reactions in photosynthesis. (20 Marks)
13. Define seed dormancy and discuss the different types. (20 Marks)
14. Discuss adaptations of plants to mesic, aquatic and xeric habitats. (20 Marks)