



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES**  
**UNIVERSITY EXAMINATIONS FOR THE DEGREE OF BACHELOR OF EDUCATION**  
**SCIENCE WITH IT AND BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES**  
**FIRST YEAR FIRST SEMESTER EXAMINATION 2018 /2019 ACADEMIC YEAR**  
**MAIN CAMPUS - REGULAR**

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**COURSE CODE:** SBT 103/ SBI 3123  
**COURSE TITLE:** INTRODUCTORY PLANT SYSTEMATICS  
**EXAM VENUE:** STREAM: (B.ed/BIO)  
**DATE:** EXAM SESSION:  
**TIME: 2 HOURS**

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**Instructions:**

- 1. Answer ALL questions in Section A and any two questions from 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: SHORT ANSWER QUESTIONS (30 MARKS)**

1. List any three Conserved Family names and the accepted corresponding alternate names (3marks)
2. Define character as used in plant systematics (3marks)
3. Distinguish the following
  - a. Taxonomy (1 mark).
  - b. Systematics (1 mark).
  - c. Biosystematics (1 mark).
4. Using a well label diagram illustrate any three placentation types (3marks)
5. Briefly explain how pests can be controlled in a standard herbarium. (3marks)
6. List any three monocots and give their corresponding scientific names (3marks)
7. State the main features of phylogenetic systems of classification? (3 marks)
8. Define the term macromolecule and cite one example (3 marks)
9. a) Define the term herbarium (1 mark)  
b) State the importance of herbarium to plant systematic? (2 marks)
10. Define micro-molecules as are applicable in chemotaxonomy (3 marks)

**SECTION B: ESSAY QUESTIONS (40 MARKS)**

11. Two students were found discussing methods used in studying biosystematics. One was right while the other was wrong. In your opinion what were the key points given by the one who was correct (20 marks).
12. Describe the procedure for preparing herbarium specimens (20marks).
13. Compare and contrast monocots and dicots 20marks
14. Write an essay on the importance of plant systematics in modern biology. (20marks).