

**CHUKA**

**UNIVERSITY**



**UNIVERSITY EXAMINATIONS**

**RESIT/SPECIAL**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE  
(BOTANY)**

**BOTA 241: TAXONOMY OF HIGHER PLANTS**

**STREAMS: B.Sc. (BOTA)**

**TIME: 2 HOURS**

**DAY/DATE: MONDAY 01/02/2021**

**8.30 A.M. – 10.30 A.M.**

**INSTRUCTIONS TO CANDIDATES: Answer ALL questions in section A and any other TWO in section B**

**SECTION A (30 MARKS)**

1. Define the taxa that ends with the following endings:
  - a. –mae (1 mark)
  - b. –phyta (1 mark)
  - c. –ales (1 mark)
  - d. –oideae (1 mark)
  - e. –aceae (1 mark)
2. Describe the formation of a genus name when commemorating a person (5 marks)
3. List the distinguishing characteristics of family Fabaceae (5 marks)
4. Discuss briefly the major categories of biosystematics (4 marks)
5. List five advantages of scientific names (5 marks)
6. Outline the major types of plant classification (6 marks)

**SECTION B (40 marks)**

7. Discuss the following:
    - a. Species concepts (6 marks)
    - b. Mechanisms of speciation (14 marks)
  8. Discuss plant collection and herbarium techniques (20 marks)
  9. a. Define a botanical key and differentiate the two main types (10 marks)  
b. Discuss the basic rules for constructing and using a dichotomous key (10 marks)
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