

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

SPECIAL/SUPPLEMENTARY

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE

BOTA 241: TAXONOMY OF HIGHER PLANTS

STREAMS: BSC

TIME: 2 HOURS

DAY/DATE: THURSDAY 12/8/2021

8.30 A.M. – 10.30 A.M.

**INSTRUCTIONS TO CANDIDATES:**

- *Answer all questions in section A and any other two in section B*
- *Elaborate with diagrams wherever appropriate*

**SECTION A (30 MARKS)**

1. With the aid of a diagram, briefly discuss a cladogram (5 marks)
2. a. Define a dichotomous key (1 mark)  
b. Briefly explain the different types of dichotomous keys (4 marks)
3. Elaborate the following in the Family Fabaceae:  
a. Distinguishing characteristics (5 marks)  
b. Economic importance (5 marks)
4. List the general principles of the ICBN (5 marks)
5. Discuss the formation of a genus name when taken from a person's name (5 marks)

**SECTION B (40 marks)**

6. a. Discuss the types of classification systems (6 marks)  
b. Describe the categories of taxa from the highest to the infra-specific and indicate their endings (14 marks)

**BOTA 241**

7. Discuss the following:
- a. Species concepts (6 marks)
  - b. Mechanisms of speciation (14 marks)
8. Elaborate plant collection and herbarium techniques (20 marks)
-