

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE IN BACHELOR OF

BOTA 241: TAXONOMY OF HIGHER PLANTS

STREAMS:

TIME: 2 HOURS

DAY/DATE: MONDAY 4/12/2017

11.30 A.M – 1.30 P.M

INSTRUCTIONS:

- **Answer all questions in section A and any other two in section B**

SECTION A (30MARKS)

1. (a) State five disadvantages of common names. [5marks]
(b) Explain the components of a scientific name. [5marks]
2. Define the species concepts that are utilized in biosystematics. [5marks]
3. Identify the endings of a genus name when commemorating a person. [5marks]
4. With the help of a diagram, explain how plant evolution has taken place over time. [5marks]
5. Elaborate the general principles of the ICBN. [5marks]

SECTION B (40MARKS)

6. (a) Discuss the 3 classification systems citing an example for each system. [6marks]
(b) Discuss the mechanisms of speciation. [14marks]

7. (a) Outline the information required during plant data collection in the field. [10marks]
- (b) Discuss the distinguishing characteristics of the following plant families:
- (i) Euphorbiaceae – castor family. [5marks]
- (ii) Fabaceae – legume family. [5marks]
8. (a) Differentiate between the two main types of dichotomous keys and give an example in each case. [10marks]
- (b) Discuss the basic rules for constructing and using a dichotomous key. [10marks]
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