



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2010/2011
OPEN, DISTANCE AND E-LEARNING EXAMINATION FOR THE DEGREE
OF BACHELOR OF EDUCATION AND BACHELOR OF SCIENCE

SBT 301: TAXONOMY OF HIGHER PLANTS

DATE: Wednesday 6th July 2011 **TIME:** 8.00a.m – 10.00a.m

Instructions: Answer ALL questions in Section A and any One question in Section B. Answers in Section A should be concise and written in the spaces provided.

Section A: Short Answer Questions (40 marks)

1. Outline the contributions to Plant Taxonomy by the following botanists:

John Hutchinson

OR

Augustin W. Eichler

2. Describe and illustrate the various types of aestivations in higher plants.

3. Distinguish between:
a) Actinomorphic and zygomorphic flowers.

b) Corymb and umbel inflorescences

c) Spike and raceme inflorescences.

4. Fill in the gaps.

Unit	Endings	Example
Division	-phyta	Trachyophyta
Order	_____	_____
Family	_____	_____
Subfamily	_____	_____
Tribe	_____	_____
Genus	_____	_____

5. (a) What is a taxonomic character?

(b) Write four uses of characters

6. Briefly discuss morphology as a source of taxonomic characters.

7. Outline the field notes you would take when collecting herbarium specimens.

8. (a) What is a nomenclatural type?

(b) Differentiate between:

i. Holotype and lectotype

ii. *Impatiens capensis* Thunberg (1794) and *Impatiens capensis* Meerburg (1775) is the name of two different species.

a) What is the term applied to such names? _____

b) Whose name is right and why?

SECTION B: Essay (30 marks)

1. Write an essay on the types of herbaria, types of collections and functions of herbaria.
2. Discuss the types of reproductive data in plant taxonomy.
3. Discuss the artificial and natural systems of classification.