



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2020/2021 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER MAIN EXAMINATION

**FOR THE DEGREE OF BACHELOR OF EDUCATION SCIENCE AND
BACHELOR OF SCIENCE IN: AGRICULTURAL BIOTECHNOLOGY,
AND AGRICULTURAL EDUCATION & EXTENSION**

COURSE CODE: SBT 211. /SBT 211

COURSE TITLE: SYSTEMATICS AND PLANT TAXONOMY/PLANT
TAXONOMY

DATE: Wednesday 16th June, 2021.

TIME: 2:00 -4:00 p.m.

INSTRUCTIONS TO CANDIDATES

Answer Question one (1) and any other two (2) Questions. Question one is compulsory and carries 30 marks, the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

QUESTION ONE

- a. Define the following terms
 - i. Systematics (1 Mark).
 - ii. Nomenclatural type (1 Mark).
 - iii. Taxonomy (1 Mark).
 - b. Distinguish the various forms of classification (3 Marks).
 - c. Outline the problems facing modern methods of plant systematics (3 Marks).
 - d. Provide the rationale for periodic remodelling of plant taxa (3 Marks).
 - e. Illustrate how taxa ABC can be related in a non-redundant way (3 Marks).
 - f. Enumerate the contributions of Theophrastus to modern day taxonomy (3 Marks).
 - g. With an example explain how you would distinguish character states (3 Marks).
 - h. Illustrate a typical COMPOSITAE flower (3 Marks).
 - i. Using any hypothetical name (s) explain how hybrids are named in plant taxonomy (3 marks).
 - j. Outline the various type specimens in taxonomy (3 marks).
2. Describe the procedure of preparing a Herbarium specimen (20 Marks).
 3. Describe the distinguishing characteristics of LEGUMINOSAE, APIACEAE and COMPOSITAE plant families (20 Marks).
 4. Discuss phylogenetics and taxonometrics as methods in plant taxonomy (20 Marks).
 5. Write an Essay on the procedure for preparing diagnostic Keys (20 Marks).