



(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR

SECOND YEAR 1ST SEMESTER
MAIN EXAMINATION

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGY,
BACHELOR OF SCIENCE IN BIORESOURCE MANAGEMENT,
BACHELOR OF EDUCATION SCIENCE AND BACHELOR
AGRICULTURE EDUCATION AND EXTENSION**

COURSE CODE: SBT 211:

COURSE TITLE: PLANT TAXONOMY

DATE: 17th January 2018

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 1

- (a). Justify the need for a good quality herbarium specimen (5 marks)
- (b). Citing examples, distinguish between homonym and tautonym. (5 marks)
- (c). With a character example, explain how you would distinguish “character states” (5 marks)
- (d). Explain the problems encountered when using modern taxonomic methods (5 marks)
- (e). What is a type specimen? (2 marks)
- (f). Distinguish between phenetic, phylogenetic and artificial classification systems. (3 marks)
- (g). Using a cladogram illustrate
 - i. 3 non-redundant ways in which three taxa [A1, A2 and A3] may be related (3 marks)
 - ii. A completely asymmetrical “comb” tree requiring five hierarchical levels (2 marks)

QUESTION 2

Describe the distinguishing characteristics of the families Asteraceae and Fabaceae (20 marks)

QUESTION 3

Write an essay on the procedure for constructing a cladogram (20 marks)

QUESTION 4

Describe the procedure for preparing a herbarium specimen (20 marks)

QUESTION 5

Write an essay on plant nomenclature, type specimens and nyms (20 marks)