MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER
SCHOOL OF SCIENCE AND INFORMATION SCIENCES
BACHELOR OF EDUCATION (SCIENCE)

COURSE CODE: BOT 311

COURSE TITLE: PLANT TAXONOMY

DATE: 18 /04/2018   TIME: 1100 – 1300HRS

INSTRUCTIONS TO CANDIDATES

(a) Answer **ALL** the Questions in Section A
(b) Answer **ANY TWO** Questions in Section B

This paper consists of 2 printed pages. Please turn over.

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

1. Briefly explain the main issues in numerical taxonomy. **(3marks)**
2. Briefly explain the meaning of each of the following terms in taxonomy;
   a) Homology **(1mark)**
   b) Parsimony **(1mark)**
   c) Tautonym **(1mark)**
   d) Synapomorphy **(1mark)**
3. Briefly explain the relationship between taxonomy and other Botany disciplines. **(3marks)**
4. Briefly explain the effects of using polynomials in classification. **(2 marks)**
5. Distinguish between homophyly and paraphyly. **(2marks)**
6. State any three importances of herbaria. **(3marks)**
7. Briefly describe the contribution of Andrea Caesalpino to taxonomy. **(3 marks)**
8. State the various kinds of biological keys and their uses. **(2marks)**
9. Briefly describe the 'Type' as used in plant nomenclature. (**3marks)**
10. State areas in which current taxonomic activities are concentrated. **(3marks)**

SECTION B: Answer Any TWO questions (2X20=40 marks)

11. a) Tabulate the endings of plant categories/ranks and in each case give an example with exception of species and genus. **(8marks)**
    b) Discuss the family Asteraceae with the aid of specific examples. **(12marks)**
12. a) Briefly explain the blossoming of taxonomic activities during the renaissance period. **(5 marks)**
    b) Describe the procedure of preparation of a herbarium sheet. **(15marks)**
13. a) Distinguish between definable and indefinable families. **(4marks)**
    b) Describe the artificial sexual system of Carolus Linnaeus. **(16marks)**
14. a) Briefly explain the key aspects of Biological species concept. **(4marks)**
    b) Discuss the International Code for Botanical Nomenclature (ICBN) **(16marks)**

END//