

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2015/2016**

THIRD YEAR, FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE BIOLOGICAL AND BACHELOR OF SCIENCE IN CROP PROTECTION

**SBT 2351/2304 : PLANT TAXONOMY/TAXONOMY OF HIGHER PLANTS**

**DATE: NOVEMBER, 2015 TIME:** $2 $**HOURS**

**INSTRUCTIONS:** *Answer question* ***one COMPULSORY*** *and any other* ***two*** *questions.*

**QUESTION ONE – (30 MARKS)**

1. State three contributions of Linnaeus to plant taxonomy. (3 Marks)
2. Explain the principle of publication in botanical nomenclature. (4 Marks)
3. State three values of the herbarium. (3 Marks)
4. Outline three disadvantages of using common names. (3 Marks)
5. Explain with examples the formation of specific epithets by:
6. Commemorative names (2 Marks)
7. Geographical areas (2 Marks)
8. State three problems encountered when constructing a dichotomous key. (3 Marks)
9. Distinguish between artificial and natural classification systems. (4 Marks)
10. (i) Linnaeus (abbreviated as L) described a plant and validity published its name as *Cammelina benghalensis*. A subspecies was described and its name published by Choror as *hirsute*. Write the full name of the sub-species. (2 Marks)

(ii) W.G Smiath described a plant and published its name as *Phyllantus nivasus* later on, small validity moved the plant to the genus *Breynia*, hence the name became *Breynia nivasus.*Write the new name with authority citation. (2 Marks)

1. Explain the meaning of the following terms:
2. Nomenclature (1 Mark)
3. Phytography (1 Mark)

**QUESTIO TWO (20 MARKS)**

Discuss any three sources of taxonomic evidence, describing their use ,advantages & disadvantages. (20 Marks)

**QUESTION THREE (20 MAKRS)**

Describe the characteristic features of family Fabaceae (leguminosae) differentiating the three sub-families. (20 Marks)

**QUESTION FOUR (20 MARKS)**

1. Describe the characteristic features of family Asteraceae. (14 Marks)
2. Explain with examples the economic importance of the family Asteraceae. (6 Marks)