

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2020/2021**

**SPECIAL/SUPPLEMENTARY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN NUTRACEUTICAL SCIENCE AND TECHNOLOGY**

**SBT 2207: PLANT TAXONOMY AND ETHNOBOTANY**

**DATE: MAY 2021 TIME: 2 HOURS**

INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

**QUESTION ONE: 30 MARKS**

a. State the five kingdoms of whitake’s (1969) classification. (2 ½ marks)

b. State the authors of the following key botanical treatises:-

 i. De meterie medica. (1 mark)

 ii. General plantarum. (1 mark)

 iii. Prodromis systematis natural regni vegetabilis. (1 mark)

 iv. Die naturuchur pflanzontamnien. (1 mark)

c. State the key distinguishing characteristics between artificial, natural and phyiogenetic classification systems in plants. (2 marks)

d. Give the correct standard endings for the following plant taxa:-

 i. Division. (1/4 marks)

 ii. Subdivision. (1/4 marks)

 iii. Class. (1/4 marks)

 iv. Subclass. (1/4 marks)

 v. Order. (1/4 marks)

 vi Suborder. (1/4 marks)

 vii. Fuming. (1/4 marks)

 viii. Superorder. (1/4 marks)

e. State the definition of the biological species concept. (2 marks)

f. Outline why botanical names are preferred over common name. (4 marks)

g.

h. Distinguish between the roles and recommendation of the international Code of Botanical Nomenclature (ICBN). (3 marks)

i. State the three requirements for valid publication of botanical names and the term “ effectively published” in botanical nomenclature. (1 ½ marks)

j. Outline six principles of ICBN. (3 marks)

k. Define the term “Nomenclatural type”. (2 marks)

l. Outline the “Principles of priority” plant nomenclature. (1 mark)

m. The three names below were published based on different types specimen for what was later found to be the same species.

*Cucomis chrysocomus* Schumai (1827)

*Physciedra chcoltocaria* Hams 861Lg (1904)

*Raphidiocystis ugandensis* Roifi. (1918)

It has since been established that the correct genus for the species is *Raptidiocystic*.

Write the correct name for the species published by Jaffney in 1962. (3 marks)

**QUESTION TWO: 20 MARKS**

Discuss the fierbarium as a databases.

**QUESTION THREE: 20 MARKS**

Discuss the morphological characters of vegetative parts of angiosperms used in

describing patterns of variation in phyiogenetic analyses.

**QUESTION FOUR: 20 MARKS**

Compare and contrast the morphological features of the plants in the Families

Solanciciate and Convovuiaccals.