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

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2019/2020**

**THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN PLANT ECOLOGY AND ENVIRONMENTAL SCIENCE**

**FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN HORTICULTURE**

**FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL HORTICULTURE**

**SBT 2302: TAXONOMY OF HIGHER PLANTS**

**DATE: APRIL, 2020 TIME: 2 HOURS**

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

**QUESTION ONE**

a. Define the following terms:-

i. Taxonomy. ( ½ marks)

ii. Nomenclature ( ½ marks)

b. Explain the nomenactural authority of the following plant taxa:-

i. *Sonchus afromontanus* R.E.Frier. ( ½ marks)

ii. *Biden grantli* (Olir) Shiriff. ( ½ marks)

iii. Solanaceae Jussieus. ( ½ marks)

iv. *Canarina Cminii* Asch and Schweinf. ( ½ mark)

c. Illustrate the following types of infionesance.

i Umbel (1 mark)

ii. Vericilaster. (1 mark)

iii. Raceme. (1 mark)

d. Briefly discuss five factors that favour cross pollination. (5 marks)

e. Outline five difference between Angiosperm and gymnosperms. (5 marks)

f. Name any five plant families of economic importance in agriculture and give one crop example for each. (5 marks)

g. Explain the difference between hybrid sterility and hybrid breakdown.

(2 marks)

h. Briefly explain five reproductive isolation mechanism that prevent gene exchange in plants. (5 marks)

i. State two reasons why insects ?????? attracted to flowers. (2 marks)

**QUESTIONTWO: 20 MARKS**

Discuss the classification of fruits.

**QUESTION THREE: 20 MARKS**

Discuss plant herbarium techniques.

**QUESTION FOUR: 20 MARKS**

Discuss the taxonomic character /evidence used in classification of Angiosperms.