

National University of Lesotho

Faculty of Agriculture

Department of Crop Science

Supplementary Examination

Marks: 100

CPS 317: Principles of Plant Breeding

14/08/2020

Instructions: Answer all the questions

Question 1

Distinguish the following terms:

- a) Protandry and Protogyny (2)
- b) Cleistogamy and Chasmogamy (2)
- c) Heterostyly and Homostyly (2)
- d) Allogamous and Autogamous species (2)
- e) Perfect and complete flowers (2)
- f) Heterozygous and Homozygous genes (2)
- g) Megasporogenesis and microsporogenesis (2)
- h) Homozygous and Heterozygous genes (2)
- i) Sterility and Incompatability mutation (2)
- j) Entemophily and Anemophily in pollination (2) [20]

Question 2

Write short notes on the following;

- a) Pollination behavior of plants (10)
- b) Pollination control in plants (10)
- c) Objectives of plant breeding (10)
- d) Science discipline that supports plant breeding (10) [40]

Question 3

With an aid of a diagram, explain different modes of reproduction in

Plants (10)

Question 4

Briefly describe the following methods applied in cross-pollination

- a) Pedigree (10)
- b) Pureline (10)
- c) Single Descent (10) [30]