

250

Eastern University, Sri Lanka
Third Year First Semester Examination in Agriculture 2003/2004
AGB- 3102 Crop Breeding and Techniques
End Semester Examination

Time: 02 Hours

Answer All Questions

1. Red Spanish is a cultivated groundnut variety showing susceptibility to *Cercospora* leaf spot disease. A germplasm of groundnut ACC 2105 has been confirmed with resistance to this disease, which is controlled by a pair of recessive genes. How would a breeder introduce the resistance for *Cercospora* leaf spot disease into the cultivated variety?
(100 Marks)
2. Describe the pedigree selection method in rice and compare it with bulk method.
(100 Marks)
3. Discuss the procedure to produce hybrid seeds of maize for commercial cultivation.
(100 Marks)
4. Explain the following:
 - a. Heritability and its significance (30 Marks)
 - b. Importance of genetic resources (40 Marks)
 - c. Cytoplasmic male sterility (30 Marks)