

EASTERN UNIVERSITY, SRI LANKA

THIRD YEAR, FIRST SEMESTER EXAMINATION IN AGRICULTURE - 2009/2010

(June / July - 2011)

AGB 3102: CROP BREEDING AND TECHNIQUES

Answer all questions.

This paper should be answered in **English**.

Time: Two hours



1. Rust resistance is controlled by a pair of recessive genes (**rr**) which is found in a land race variety of groundnut. An adapted variety found susceptible to rust disease is cultivated due to its many desirable characters, including high yield.

Describe in details how the rust resistance in the land race variety is incorporated into the adapted variety to get over the rust disease problem of it.

2. Discuss the following:

- Centre of origin of crop species with the description of three primary centres included
- Basic genetic resources and their significance

3. Explain the following

- Recurrent selection method to improve oil content in maize
- Inoculation techniques to introduce insect transmitted viruses to host plants

4. Write short notes on

- Heritability and its importance
- Genetic male sterility and its usefulness
- Self incompatibility in crops