



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2013/2014**

**SECOND YEAR SECOND SEMESTER EXAMINATIONS FOR THE  
DEGREE OF MASTER OF SCIENCE IN PLANT BREEDING**

**(MAIN-CAMPUS)**

**AAG 808: PLANT GENETIC RESOURCES AND BIODIVERSITY**

*Date: 23<sup>rd</sup> July 2014*

*Time: 2.00 – 5.00 pm*

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**INSTRUCTIONS:**

- Answer ALL question in Section A and any TWO other questions in section B.



## **INSTRUCTIONS**

Answer **ALL** questions in **section A** and any **TWO** other questions in **section B**

### **SECTION A (40 MARKS)**

**Answer ALL questions from this section**

#### **Question 1**

- (a) Give concise definitions of the following terms within the context of plant genetic resources  
(2 marks each):
- i) Germplasm
  - ii) Agrobiodiversity
  - iii) Genebank
  - iv) Habitat
  - v) Gene pool
- (b) Distinguish between the following within the context of plant genetic resources  
(3 marks each)
- i) Threatened versus vulnerable species
  - ii) Center of diversity versus center of origin
  - iii) Sympatric versus allopatric evolution
  - iv) Cultigen versus cultivar
  - v) Genetic erosion versus genetic vulnerability

#### **Question 2**

According to the international convention for biodiversity, genetic resources are, living materials that hold genes of present and potential value for humans. List the recognized types of plant genetic resources.

(3 marks)

#### **Question 3**

Many threats or drivers of change in biodiversity have been recognized and found to have intensified in recent years with the risk that these changes will lead to the loss of