



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2016/2017**

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

**MAIN CAMPUS**

**AAG 825: CYTOGENETICS**

Date: 10<sup>th</sup> April, 2017

Time: 9.00 - 12.00pm

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MASENOUNIVERSITY  
SCHOOL OF AGRICULTURE AND FOOD SECURITY

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DEPARTMENT OF APPLIED PLANT SCIENCES

2016/2017 Semester I University Examinations For the Award of the  
Master of Science Degree in Plant Breeding

AAG 825 - Cytogenetics

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**Instructions:** SECTION I: Answer ALL Questions( 10 Marks Each)

- Q1. Explain the centrality of cell lineage in the notion of continuity of life and its significance
- Q2. Discuss the chromosomal basis of inheritance
- Q3. When and how does reduction division occur in Meiosis and what is its genetic significance?
- Q4. Discuss the 'start' and 'stop' processes in cell division

SECTION II ( Essay Questions) Answer any 2 Questions( 15 Marks Each)

- Q5. Briefly discuss chromosomal aberrations that occur in nature and their significance in plants
  - Q6. Provide a detailed outline of the evidence for the linear order of genes in chromosomes
  - Q7. Discuss the physical structure of chromosomes
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