



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2011/2012
IBP DECEMBER 2011 SESSION EXAMINATION FOR THE DEGREE OF
MASTER OF SCIENCE IN PLANT BREEDING

KST 531: QUANTITATIVE GENETICS AND STATISTICAL TOOLS

DATE: Friday, 4th May, 2012

TIME: 9.00 a.m. – 12.00 p.m.

INSTRUCTIONS:

ANSWER **ANY FOUR** QUESTIONS; 25 MARKS EACH

1. Discuss the genetic basis of heterosis and factors affecting it.
2. Discuss applications of Hardy-Weinberg equilibrium.
3. Discuss five statistics used in stability analyses.
4. Describe genetic gain, selection intensity, selection differential and response to selection using illustrations.
5. Discuss application of SCA and GCA in crop improvement.

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