

UGANDA MARTYRS UNIVERSITY

FACULTY OF AGRICULTURE

BSC GENERAL AND ORGANIC AGRICULTURE YEAR 3 / 2

Supplementary / Special Examinations September 2015-2016

Exam: MODULE 9/ MODULE 11: COMMODITY IMPROVEMENT AND BIOTECHNOLOGY

Instructions:

- i. *Attempt all Questions in Section A and any 3 questions from Section B*
 - ii. *Write clearly, number the questions appropriately on the answer booklet*
 - iii. *Read and understand the instructions on the last page of the answer booklet*
 - iv. *Do not write anything on a question paper*
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1. Give reasons why crop varieties are tested in different locations prior to their release and explain the expected environmental influence on the yield attained by a rain fed crop.
 2. With examples describe the factors a farmer needs to consider in deciding whether to use hybrid seed or an open-pollinated variety.
 3. Describe the problems a farmer is likely to face when using seed which was not produced under approved seed production guidelines catered for in the seed law.
 4. How do activities in plant genetic resources conservation enhance plant breeding?
 5. a) Explain why moisture content and temperature are important when storing seed in a gene bank? and
b) Give 4 reasons why viability of seed samples in a genebank should be monitored.
 6. What is meant by 'Intellectual Property Rights' and how such rights are catered for in regard to improved crop varieties?
 7. Explain the advantages associated with tissue culture in the dissemination of improved germplasm worldwide.
 8. Describe the consequences of poor field management for a crop whose seed product is meant for commercial sale.
 9. Describe the role of man in environment degradation.
b) What are the problems associated with loss of genetic diversity