UGANDA MARTYRS UNIVERSITY
FACULTY OF AGRICULTURE

COURSE WORK 2015-2016
Bachelor of Science in Agriculture Year 3
Bachelor of Organic Agriculture Year 3
Module: AG/09 & OA/11 Commodity Improvement and Biotechnology
Submission Deadline 6th November 2015

Instructions:

- *Attempt all questions*
- *Read and understand the questions before answering*
- *Start each question on a new page*
- *Font size 12 and Bookman Old Style*
- *Spacing 1.5*

1a) Why is it necessary to make detailed observation on the damage pests and diseases cause on a crop before you start breeding for resistance?

b) Why should results of breeding work be analysed statistically?

2. Explain why other stakeholders besides farmers should be involved in evaluation and selection of new varieties.

3. Explain the advantages and disadvantages associated with tissue culture in the dissemination of improved germplasm worldwide.

4a) What sort of commodity improvement is catered for by genetic engineering?

b) Why is it essential to have a law governing use and dissemination of GMOs?

5a) What is the difference between orthodox seed and recalcitrant seed?

b) Explain why it is it essential in seed marketing to attach informative labels on seed packages and show the type of information required.

6. 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.

7a) Describe traits that are of value in two domestic animals and

b) Explain farmer's role in effort to improve domesticated animals through AI.

8a) Give reasons that justify need for detailed information on parents prior to start of breeding any domestic animal and

b) What does a farmer lose if there are no records on the farm?

9a) Explain why a summit conference on biodiversity was held and

b) Discuss possible benefits the developing countries can get from implementation of intellectual rights and patents on plants.

10a) Describe the role of man in environment degradation.

b) What are the problems associated with loss of genetic diversity?