Uganda Martyrs University

Faculty of Agriculture

B. Agriculture I, Semester 1 Final Assessment: 2014/2015

Course Unit: Introduction to Agriculture

Time: 2:00 pm -5:00 pm

Date: Thursday, 4th December, 2014

Instructions:

Section A is compulsory

Answer any three questions in section B

Do not write anything on a question paper

Time allowed: Three(3) hours

Section A

1. Illustrate and descried the distinguishing features of a male and female fish species. Considering pond fish farming and cage fish farming distinguish the two using their characteristics and challenges of each of these methods of fish farming in Uganda.

Section B

2. Discuss the extent to which agriculture has influenced a sustainable ecological balance in Uganda.

3. Explain how modern agricultural development has affected nature unlike traditional agriculture.

4. There are a number of challenges associated to agriculture in relation to human health and safety. Discuss these challenges giving specific examples throughout the agricultural production chain.

5. "Indigenous knowledge and gender are aspects attributed to differences in culture and regions in Uganda". Giving specific examples, explain the validity of this statement.

6. "Direction of wind is one of the factors that may lead to colonization of a bee hive". Explain other factors that may lead to the same and those that may force bees to abscond their hive.

7. Giving specific examples to any region familiar to you explain how agriculture has contributed to people's livelihoods of that community.

Good Luck!!

b) A farmer wanted to prepare a field to establish an onion garden. He collected representative soil sample which weighed 300g with a volume of 250cm^3. When he added 250cm^3 of tap water to the sample in a 1000cm^3 measuring can, the total volume of the mixture was 450cm^3. He assumed the weight of air was insignificant.

i) What was the bulk density of the collected soil sample
ii) Calculate the particle density of the soil sample
iii) Explain the factors that influence the bulk density of any soil

7. As a graduating candidate of soil science, **explain giving illustrations** to the farmer who would like to understand the *water table* and its major types.

8. **Explain** the role of living organism in the process of soil formation. How does mulching **sustain** living organisms in the soil?

Good luck