

Uganda Martyrs University

Faculty of Agriculture

Semester I Final Assessment: 2015/2016

B. Agriculture Year 2

Course Unit: AAT 1201: APPROPRIATE AGRO-MECHANIZATION TECHNOLOGY

Time: 9:30 am – 12:30 pm

Date: Friday, 04th December, 2015

Instructions:

- (a) Read all instructions carefully
- (b) Attempt four (4) questions
- (c) Time allowed three hours
- (d) Please read the instructions carefully before answering the questions

Question one

As a University graduate who has undergone training in agro-mechanisation, explain how you would advise a farmer to ensure safety while driving a tractor at a particular farm.

Question two

The government of Uganda is proposing to set up an irrigation scheme in one of the district in the east of the country. If you are appointed as a consultant, advise government on the environmental aspects which are likely to arise and how they should be mitigated.

Question three

Birinzi maize farm is a mechanized demonstration farm in Masaka District. The farm uses a motorized sprayer to control pests and diseases during the cropping season. If you are appointed as their farm manager, explain how you would maintain their sprayers so that they can serve for a long time.

Question four

- a) List five advantages of soil as a building material.
- b) Explain the properties you would consider before choosing timber preservative to be used for a farm structure on a typical farm.

Question five

Uganda Grain millers deal in grain business and they keep large stocks of grain in their silos. Advise them how they can control uniform moisture content of their grain in the small and larger steel silos in the hot climate of Uganda.

Question six

Discuss the factors that influence water infiltration into a soil in relation to irrigation water.

Question seven

An investor at Nindye farm wants to install an irrigation system but has no knowledge of the whole system. He has approached you as a subject matter specialist to seek for advice. Write a brief report on what an irrigation arrangement would entail.

Question eight

- a) Briefly outline at least five design characteristics of farm structures
- b) Bamboo is used in tropical, sub-tropical and temperate zones as building materials. Give the advantages and disadvantages of using bamboo in building construction and give examples where it can be used.