



The Open University of Sri Lanka
Faculty of Engineering Technology
Bachelor of Science in Industrial Studies Program
Final Examination- 2011/2012

AEI3235 Land and Soil Tillage Management

Date : 21.03.2012
Time : 0930-1230
Duration : Three (03) hours

SECTION 2: Answer any four (04) questions.

1. Describe how land management practices that could improve the small farmer field productivity in Sri Lanka.
2. (a) "Soil erosion problems are often worse in monoculture (cultivation of one crop over the same land for long period) fields". Briefly explain and justify this statement.
(b) Explain how you can overcome the situation in order to improve the productivity?
3. (a) What is meant by "Salinity of soil"?
(b) The paddy lands situated in Ampara district has been damaged extensively due to sea water intrusion due to tsunami disaster and later on irrigation and water logging conditions. Assume you as an agriculture instructor in that area and what advices you could give the farmers to uplift the paddy cultivation.
4. Briefly explain the different method of tillage to manipulate the soil to prepare seed beds.
5. (a) Describe the consequences of lower organic matter content on physical, chemical and biological properties of soil.
(b) Briefly explain what happen to soil phosphorous availability when an organic matter added to the soil.
6. Write short notes on following topics.
 - a) Soil texture
 - b) Mass haul diagram
 - c) Soil compaction
 - d) Importance of soil fauna