

The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Agricultural & Plantation Engineering



Study Programme : Bachelor of Industrial Studies Honors
Name of the Examination : Final Examination
Course code and Title : AGI3450 Land and Soil Tillage Management
Academic year : 2020/2021
Date : 29 January 2022
Time : 1400 – 1700 hrs
Duration : 3 hours

Registration Number Index Number.....

Instructions

1. Contain SIX (06) essay type questions. You are required to answer **ONLY FOUR (04) questions**. You may spend about **two hours** to answer the questions in this section. Answer for each question should commence from a new page.
2. Read the questions carefully before answering.
3. Please note that you should write your registration number and index number in the space provided above. Do not write your name.

SECTION 2

1. a. Discuss the major components of soil. (10 mark)

b. Briefly discuss the conservation practices which help to reduce the moisture losses from the soil. (15 mark)
2. a. Describe the effects of insufficient nutrient supplement for plants. (10 mark)

b. Briefly describe the nitrogen cycle (15 mark)
3. a. Discuss the factors responsible for the formation of saline soil. (10 mark)

b. Briefly describe the impact of salinity on plant growth and soil salinity control methods. (15 mark)
4. a. Explain the impacts of tillage. (10 mark)

b. Describe two (02) different tillage patterns using suitable diagram. (15 mark)
5. a. Discuss the advantages and disadvantages of transplanting of crops. (10 marks).

b. Briefly describe the different techniques of seeding. (15 mark)
6. Write short note on following. (25 mark)
 - a. Land use planning.
 - b. Factors affecting in land classification.
 - c. Possible causes for changing the pH in soils.
 - d. Relationship between normal stress and shear strength.