



The Open University of Sri Lanka
 Faculty of Engineering Technology
 Bachelor of Industrial Studies Honours (Agriculture)
 Final Examination 2019/2020
 AGX4532/AEX4232 Soil and Water Conservation

SECTION 2: Answer any four (4) questions. All questions carry equal marks.

1. Write an essay on “crop and vegetation management in conservation farming”
2. a. Briefly explain the term “crop rotation”
 b. Explain the importance of conservation farming in obtaining long-term sustainable agricultural production
3. a. Briefly explain the term “infiltration capacity”
 b. Calculate the soil loss for a 6 ha catchment having the following characteristics:

Rf erosivity Index	= 300
Soil erodibility factor	= 0.6 t/ha/yr/R
Field slope	= 4.2%
Length of slope	= 335m
Conservation practice factor	= 0.5
Crop management factor	= 0.2

 Where,

$$L_s = (L/22.13)^{1/2} (0.065 + 0.045S + 0.0065 S^2)$$
4. Write an essay on “Soil conservation in tea plantations in Sri Lanka”. Include the causes of soil erosion and the possible measures to minimize the problems in tea plantations
5. Discuss the effects of political inventions in implementing an agricultural development projects in Sri Lanka
6. Write short notes on any **three (03)** of the following.
 - a. Pedestal erosion
 - b. Erosion control by good farming
 - c. Flood in rainy season
 - d. Rainwater harvesting and runoff in agriculture

