

KERALA AGRICULTURAL UNIVERSITY
B.Sc (Hons.) Agriculture 2015 & Previous Admissions (New Scheme)
Ist Semester Re-Examination-April-2017

Cat. No: Ssac 1101

Marks: 50.00

Title: Introduction to Soil Science (2+1)

Time: 2 hours

I Fill in the Blanks/State True or False

(10x1=10)

1. The study dealing with the genesis, survey and classification of soil is -----
2. Acid rocks contains -----
3. Gneiss is formed form -----
4. 2 : 1 expanding clay mineral is
5. Biological agent of weathering is
6. Horizontal section of soil is known as soil profile
7. Planetesimal hypothesis is one in which the planets of the solar system are seen to arise from an encounter between the sun and another star.
8. Edaphology is dealing with the soil genesis, survey and classification.
9. Sandy soils have more pore space than clayey soils.
10. The colour of the organic soil is red.

II Write short notes on any FIVE

(5x2 = 10)

1. Bulk density and particle density
2. Soil texture and soil structure
3. Atterberg's limit
4. Fundamental soil forming process
5. Podzolisation and Laterisation
6. Forms of soil water
7. Solum and Regolith

III Answer any FIVE questions

(5x4=20)

1. Describe briefly about the classification of clay minerals with suitable examples.
2. Define soil structure. Explain in detail about different types of soil structure.
3. Describe the various methods of soil moisture estimation.
4. Discuss on the significance of CEC in soil fertility. Bring out the factors affecting the CEC of soils.
5. Narrate various assumptions made while using stoke's law.
6. Define soil pH. What is the signigicance of soil pH on nutrient availability?
7. Classification of soil water and its importance.

IV Write essay on any ONE

(1x10=10)

1. Draw a neat sketch of soil profile and explain about the various surface and subsurface horizons with characteristics.
2. Explain about the soil water potential and soil moisture constants.
