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KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Agriculture 2013 Admission

7th Semester One Time Re-Examination-January-2017

Cat. No: Ssac. 1101

Marks: 50.00

Title: Introduction to soil science (2+1)

Time: 2 hours

I Fill up the blanks & True or false

(10x1=10)

1. The study dealing with the genesis, survey and classification is
2. Acid rocks contains
3. Gneiss is formed from
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 of the following

(5x2=10)

1. Bulk density and particle density
2. Soil texture and soil structure
3. Composition of soil air
4. Podzolisation and laterisation
5. Buffering capacity of soil
6. Forms of soil water
7. Mass flow and Diffusion

III Short Essays (Any FIVE)

(5x4=20)

1. Describe briefly about the classification of clay minerals with suitable examples
2. What are soil forming factors. Describe in detail about active and passive soil forming factors
3. Define soil structure. Explain in detail about different types of soil structure.
4. Describe the various methods of soil moisture estimation
5. Discuss on the significance of CEC in soil fertility. Bring out the factors affecting the CEC of soils
6. Define soil pH. What is the significance 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.
