

KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Agriculture 2016 Admission
Ist Semester Final Examination-March-2017

Cat. No: Ssac 1102

Marks: 50.00

Title: Fundamentals of Soil Science(2+1)

Time: 2 hours

I. Define the following

(10 x 1=10)

1. SOIL
2. MINERAL
3. SOIL TEXTURE
4. BULK DENSITY
5. SALINE ALKALI SOIL

State True or False

6. A,B,C horizons on combination forms 'Regolith'.
7. The black colour of soil is due to montmorillonite.
8. Soil phase represent group of soil with similar horizons
9. Soil consistency increases with organic matter.
10. Alkali soils have a pH range of 8.5 to 10.0.

II Write Short notes on any FIVE

(5 x 2 = 10)

1. Detailed soil survey.
2. Origin of soil structure.
3. Enlist the various agents of physical weathering.
4. Laterization
5. Soil moisture constants.
6. Importance of 'CEC' in maintaining soil fertility.
7. Beneficial roles of soil macro organisms.

III Answer any FIVE questions

(5 x 4 =20)

1. Describe in brief the salient features of salt affected soils and their amelioration.
2. Briefly describe pore space. Give the factors affecting pore space.
3. How does parent material and climate respond to soil formation?
4. What are the factors affecting ion exchange and its significance?
5. On the basis of physical and chemical weathering prove that weathering is a process of disintegration and decomposition of rocks.
6. What do you mean by pH concept and its suitability in soil studies?
7. Describe the properties and different kinds of soil colloids.

IV Write Essay on any ONE

(1 x 10 = 10)

1. Role of organic matter in maintaining plant nutrition.
2. Characterization and reclamation of acid soils.
