



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Agrl. Engg.) 2020 Admission
I Semester Final Examination-November 2021

Sacs. 1104

Principles of Soil Science (2+0)

Marks: 50
Time: 2 hours

I State True or False, If false correct the statements (10x1=10)

1. A soil with low bulk density will have a higher pore space.
2. A soil with high sand content is called as heavy soil and a soil with high clay content is called as light soil.
3. Exfoliation is a process of chemical weathering.
4. Soil structure is a basic property of the soil and it cannot be altered.
5. The surface area exposed by 1g of sand will be more than that exposed by 1g clay.
6. Basalt is an acidic igneous rock.
7. A1 horizon of a soil profile is known as zone of maximum illuviation.
8. Laterization is an important pedogenic processes common in humid tropics.
9. Soil organic matter reduces cation exchange capacity of soils.
10. In sodic soils ESP will be less than 15.

II Write Short notes on ANY FIVE of the following (5x2=10)
Differentiate between

1. A Horizon and B Horizon
2. Land and Soil
3. Texture and structure
4. Bulk density and particle density
5. Primary and secondary minerals
6. Kaolinite and montmorillonite
7. What are liquid fertilizers? Give two examples.

III Answer ANY FIVE of the following (5x4=20)

1. Classification of rocks
2. Soil organic matter
3. Saline soils and their management
4. Soil taxonomy
5. Quality of irrigation water
6. Soil colloids
7. What are sodic soils?

IV Write an essay on ANY ONE of the following (1x10=10)

1. Explain factors of soil formation. Describe the active and passive factors
2. Explain important physical properties of soil and their importance in crop production
