



KERALA AGRICULTURAL UNIVERSITY
B. Tech. (Agrl. Engg.) 2022 Admission
I Semester Final Examination – March 2023

Sacs.1104

Principles of Soil Science (2+0)

Marks: 50
Time: 2 hours

I

State True or False

(10x1=10)

1. Basalt is an example of plutonic rock.
2. Sedimentary rocks are also termed as stratified rocks.
3. Decomposition of organic matter results in the loss of CO₂.
4. Climate is considered as the active formation of soil formation.
5. The ratio of total mass of soil solid to total volume of soil solid is known as bulk density.

Fill in the blanks

6. There arenumbers of soil orders.
7. Recent soils with no diagnostic horizon comes under.....order
8. Exchangeable sodium percentage of alkali soil is.....
9. The criterion of essentiality of nutrient was proposed by
10. The stable end product of decomposition of plant and animal residue is known as.....

II

Write short notes on ANY FIVE of the following

(5x2=10)

1. Definition of soil.
2. Particle Density
3. Factors of soil formation
4. Characteristics of Mollisols
5. Soil Organic Matter
6. Quality of Irrigation Water
7. Metamorphic rocks

III

Answer ANY FIVE of the following

(5x4=20)

1. Write the role of climate in soil formation.
2. Briefly explain the criteria's for irrigation water.
3. How igneous rocks are formed?
4. What are the sources of soil acidity?
5. Write the differences between saline and alkali soils.
6. What are the factors that affect soil texture?
7. Write the criteria of Vertisols.

IV

Write an essay on ANY ONE of the following

(1x10=10)

1. Explain the characteristics features of different soil orders.
2. Explain the five factors of soil formation?
