



KERALA AGRICULTURAL UNIVERSITY
B.Tech. (Ag. Engg.) 2017 Admission
I Semester Final Examination-January-2018

Sacs.1104

Principles of Soils Science (2+0)

Marks: 50
Time: 2 hours
(10x1=10)

I Fill in the blanks:

- 1 The most abundant element of the atmosphere is-----
- 2 The most abundant rock type of the earth's crust is-----
- 3 The common C:N ratio of soil is -----
- 4 Horizons A and B together called as-----
- 5 Soil colour is measured using-----chart.
- 6 There are -----orders in soil taxonomy.
- 7 The black soils of India are classified in-----order of Soil Taxonomy.
- 8 The process of 'moving out' in a soil profile is known as-----
- 9 An acidic soil will have pH less than -----
- 10 ----- is used for reclamation of sodic soil.

II Write Short notes on ANY FIVE of the following

(5x2=10)

Differentiate between

- 1 Physical weathering and chemical weathering
- 2 Primary mineral and secondary mineral
- 3 Bulk density and particle density
- 4 Texture and structure
- 5 Saline and sodic soils
- 6 Acid soil and alkaline soil.
- 7 Igneous rock and sedimentary rock.

III Answer ANY FIVE of the following

(5x4=20)

- 1 Important inorganic soil colloids
- 2 Importance of Soil organic matter
- 3 Factors of soil formation
- 4 Quality of irrigation water
- 5 Cation exchange capacity
- 6 Soil organic matter and its importance
- 7 Soil structure and its importance

IV Write an essay on ANY ONE of the following

(1x10=10)

- 1 List and explain important physical properties of soil with their importance
- 2 a What is soil taxonomy? What is its relevance
b List out important soil orders and explain any five of them
