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**KERALA AGRICULTURAL UNIVERSITY**  
**B.sc (Hons) Ag 2015 Admission**  
**1<sup>st</sup> Semester Final Examination-February -2016**

Cat. No: SSac.1101

Title:- Introduction to Soil Science (2+1)

Marks: 50.00

Time: 2 hours

**I Fill up the blanks/ Say True or False**

(10 x 1=10)

- ✓ 1. Fundamental unit of soil classification is \_\_\_\_\_
- ✓ 2. Young and recently formed soils is \_\_\_\_\_
- ✓ 3. \_\_\_\_\_ is the study of the origin of rocks
- ✓ 4. Father of soil science is \_\_\_\_\_
- ✓ 5. 1 :1 non expanding type of clay is \_\_\_\_\_
- ✓ 6. The study of rocks is called Petrology \_\_\_\_\_
7. The material transported by the action of ice is called glacial
8. The unconsolidated materials above the parent rock is called solum
9. The highest category in soil taxonomy is series
10. The sandy soil have very low bulk density

**II Answer any Five questions**

(5 x 2=10)

- ✓ 1. USDA and ISSS soil textural classifications
2. Active and passive soil forming factors
- ✓ 3. Bulk density and particle density
4. Munsell colour notations
- ✓ 5. Podzolisation and Laterisation
- ✓ 6. Significance of pH in soil
7. Cation Exchange Capacity

**III Answer any Five questions**

(5 x 4=20)

- ✓ 1. Organic matter fractionation and explain about the humus formation
- ✓ 2. Describe the classification on clay minerals with suitable examples
3. Define soil structure. Explain in detail about classification of soil structure, its significance and its management
4. Draw a hypothetical soil profile and explain about the characteristics of surface and subsurface horizons with characteristics
- ✓ 5. Enumerate the classification of rocks and minerals with suitable examples
6. Explain about the method of determination of soil moisture
- ✓ 7. Importance of C:N ratio on soil fertility

**IV Answer any ONE of the following**

(1 x 10=10)

1. Explain in detail about soil taxonomy, salient features, criticism and its appreciation
- ✓ 2. Problem soil and its management