

**KERALA AGRICULTURAL UNIVERSITY**  
**B.Sc (Hons.) Forestry 2015 Admission**  
**1<sup>st</sup> Semester Final - Examination- March-2016**

**Cat. No:Safo.1102**

**Marks: 50.00**

**Title: Fundamentals of Geology and soil science (2+1)**

**Time: 2 hours**

**I Fill up the blanks**

**(10 x 1=10)**

1. Marble is a metamorphosed equivalent of \_\_\_\_\_
2. The most dominant element in the earth's crust is \_\_\_\_\_
3. The difference in the moisture content between liquid limit and lower plastic limit is called \_\_\_\_\_
4. Common colour chart used for describing the soil colour is \_\_\_\_\_
5. The branch of geology that deals with the origin ,composition ,structure ,and alteration of rocks is called \_\_\_\_\_
6. The ionic radius of cations are usually \_\_\_\_\_ than that of anions
7. The basic unit of soil structure is called \_\_\_\_\_
8. The bouncing or jumping of soil particles in the range of 0.05 to 0
9. Ferro magnesium in diameter is called \_\_\_\_\_
10. Sodic soils without any appreciable quantities of soluble salts is called \_\_\_\_\_

**II Write short notes on any FIVE questions**

**(5 x 2=10)**

1. Quality of irrigation
2. Maintenance of organic matter in soils
3. Nitrification
4. Fate of ammonium ions in soil
5. Soil structure
6. Rhizosphere
7. Lime requirement

**III Write short essay on any FIVE questions**

**(5 x 4=20)**

1. Vapour movement in soils
2. Biological classification of water
3. Remote sensing
4. Practical difficulties in soil survey
5. Temperature management in soils
6. Composition of soil air
7. Soil crusting

**IV Write essay on any ONE**

(1 x 10=10)

1. What is weathering? How do you differentiate physical weathering from chemical weathering? What are the different processes involved in physical and chemical weathering
2. What are saline soils and how do you characterize them? Give reasons for formation of saline soils and what are the measures to reclaim saline soils