



KERALA AGRICULTURAL UNIVERSITY
B.Sc (Hons.) Forestry 2015 Admission
IV Semester Final Examination-August-2017

Safo. 2209

Chemistry and Fertility of Forest Soils (2+1)

Marks: 50
Time: 2 hours

- I State True or False:** (10x1=10)
- 1 Rocks formed by solidification of molten lava are called metamorphic rocks.
 - 2 Humus is colloidal in nature.
 - 3 Sulphur is essential for the synthesis of cystine.
 - 4 Nitrogen is easily available when the C/N ratio is greater than 10.
 - 5 Frankia fixes nitrogen in legumes.
 - 6 Compaction will induce soil erosion by water.
 - 7 Clayey soil is generally referred to as heavy soil.
 - 8 Allophane is amorphous in nature.
 - 9 Mycorrhizae are associated with phosphorus mobilization.
 - 10 Total porosity is more in coarse textured soil.
- II Write short notes on any FIVE:** (5x2=10)
- 1 Humus.
 - 2 Soil pH.
 - 3 Micronutrients.
 - 4 Soil compaction.
 - 5 Sources of nitrogen in soil.
 - 6 Cation exchange capacity.
 - 7 Mineralization.
- III Answer any FIVE:** (5x4=20)
- 1 Laterisation.
 - 2 Factors affecting phosphorous availability.
 - 3 Biofertilizers.
 - 4 Microbial associations in forest tree roots.
 - 5 Essential plant nutrients.
 - 6 Role of earthworms in soil health.
 - 7 Soil porosity.
- IV Write essay on any ONE:** (1x10=10)
- 1 Nutrient cycling in humid tropical soils.
 - 2 Ecohydrological relevance of natural forests of Kerala.
