

EASTERN UNIVERSITY, SRI LANKA
FINAL YEAR, FIRST SEMESTER EXAMINATION IN AGRICULTURE - 2009/2010

SOIL CHEMISTRY (ACH - 4109)



Answer all questions

Time: One Hour

1. a. Explain how the diffuse double layer formed around a soil colloid in soil suspension and illustrate the distribution of the electrical potential between the surface of the colloid and any point in the mass of the suspending liquid

(50 Marks)

b. Explain the tendency of colloids to agglomerate or remain discrete using DLVO (Derjaguin, Landau, Verwey and Overbeek) theory.

(35 Marks)

c. Indicate the factors affecting the thickness of diffuse double layer.

(15 Marks)

2. Write an account on

a. Buffer systems in soil to buffer pH change

b. Normalized Exchange Isotherm for cationic preference.

c. Quantity - Intensity relationship in nutrient availability
