

THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME
BOTANY – LEVEL 05
FINAL EXAMINATION – 2011/12
BOU3104/BTU3105/BTE5105 – SOILS AND PLANT GROWTH



DURATION – TWO HOURS

Date – 30th November 2012

Time – 09.30 a.m. – 11.30a.m.

Answer any four (04) questions.

01.
 - a. What is a mineral?
 - b. Distinguish between a primary mineral and a secondary mineral.
 - c. Briefly explain the constructive process of soil development.

02. Explain concisely how soil Nitrogen is made available for plant growth, the factors that affect on the status of soil Nitrogen and how they occur in plants.

03.
 - a. What are the major functions of soil bacteria and soil fungi?
 - b. Discuss the physical and chemical functions of organic matter in soil.

04.
 - a. What is green manuring?
 - b. List the factors one should look for when choosing a green manuring plant.
 - c. Explain briefly the effects of cover and green manure crops on soil.

05.
 - a. How do acidic and saline soils develop?
 - b. Write an essay on “improvement of acidic and saline soils through soil amelioration” indicating effects and management practices.

06. Write short notes on **any two (02)** of the following.
 - a. Soil development and topography
 - b. Porosity and weight of soil
 - c. Morphology and fertility characteristics of major soil types in wet and dry zones