

THE OPEN UNIVESITY OF SRI LANKA  
 B.Sc. DEGREE PROGRAMME  
 BOTANY – LEVEL 05  
 FINAL EXAMINATION – 2014/15  
 BOU3104/BTU3105/BTE5105 – SOILS AND PLANT GROWTH



DURATION – TWO HOURS

Date – 30<sup>th</sup> October 2015

Time – 1.30 p.m. – 3.30 p.m.

Answer **any four (04)** questions.

1. a. What do you mean by “constructive process in soil development”? (05 min)  
 b. Explain the factors/sources that influence on the constructive process of soil development. (25 min)
2. a. Define the term “soil structure”. (05 min)  
 b. Discuss the factors that are responsible for granulation and structure formation in soil. (25 min)
3. a. In what major forms is Nitrogen present in soil? (05 min)  
 b. Describe the availability of Nitrogen in soil for plant growth indicating sources and processes involved. (25 min)
4. a. List five (05) chemical properties of soil.(05min)  
 b. Outline the importance of the properties you listed in 4.a to maintain soil fertility. (25min)
5. a. Define the term “soil erosion”.(05 min)  
 b. Briefly state the principles that underlie the methods available to control water erosion (10 min)  
 c. Discuss with examples how the methods to control water erosion are practiced based on above principles.(15 min)
6. Write short notes on **any two (02)** of the following.
  - a. Soil development in relation to vegetation (15 min)
  - b. Biological methods of soil fertility evaluation (15 min)
  - c. Trees and shrubs for soil improvement (15 min)