



THE OPEN UNIVERSITY OF SRI LANKA
B.SC. DEGREE PROGRAMME – LEVEL 05
FINAL EXAMINATION - 2006/2007
BOTANY
BTU 3101/BTE 5101- ENVIRONMENTAL AND APPLIED MICROBIOLOGY

DURATION: TWO AND A HALF HOURS(2 1/2 HRS)

Date: 25th April 2007

Time: 10.00 am – 12.30 p.m

Answer any four (04) Questions.

01.
 - a. Schematically illustrate the steps in the Nitrogen and Carbon cycle in nature.
 - b. Citing examples, discuss in detail the effects of human activities on the Carbon and Nitrogen cycles.
02.
 - a. Giving examples, list the community types seen in an aquatic ecosystem.
 - b. Briefly explain the conditions that affect the microorganisms in water.
03.
 - a. Give reasons why food has to be preserved?
 - b. Write a short account on the methods used in food preservation. Your answer should include the principles of the methods used, examples of food and the methods of processing.
04.
 - a. What do you understand by the term “immunity” with reference to microbial infections?
 - b. Distinguish between natural and acquired immunity.
 - c. Outline in brief the various types of acquired immunity seen in the human body.
05. “Applications of recombinant gene technology is widely used in medicine, agriculture and control of environmental pollution”. Comment on this statement with the help of examples.
06. Write short notes on any two (02) of the following
 - a. Manufacturing of Beer
 - b. Secondary(biological) treatment of municipal waste
 - c. Antagonistic interactions between microorganisms