



THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME – LEVEL 05
FINAL EXAMINATION – 2008/2009

BOTANY

BTU 3101/BTE 5101 – ENVIRONMENTAL AND APPLIED MICROBIOLOGY

DURATION : TWO AND A HALF (2 ½) HOURS

Date : 16th June 2009

Time : 10.00 am – 12.30 pm

Answer any four (04) questions.

01. a) Briefly explain the following terms giving two (02) examples of microorganisms for each of
- i. rhizosphere
 - ii. rhizoplane
- b) Describe the methods used in the isolation and purification of fungal species from rhizosphere and rhizoplane.
02. (a) List the intrinsic and extrinsic factors that may affect the growth and survival of microorganisms in food.
- (b) Explain how these intrinsic factors affect the microbial growth in food.
03. Write briefly on the use of microorganisms in
- (a) pollution control
 - (b) production of vinegar
 - (c) microbial leaching and metal recovery
 - (d) biological control of plant pests and pathogens

04. (a) What is meant by normal flora of human body?
(b) List five (05) important features of normal flora.
(c) Write a short account on public health measures for the control of epidemics.
(d) Differentiate between the following.
(i). Primary immune response and secondary immune response
(ii). Antibodies and antigens
05. (a) What are the sources of potable water?
(b) Outline the steps in the treatment process for drinking water.
(c) What does sewage consist of?
(d) Explain the steps involved in primary and tertiary treatment of sewage.
06. Write short notes on **any three (03)** of the following.
(a) Preservation of food by dehydration
(b) Control of microorganisms in air in confined areas
(c) Role of microorganisms in food chains
(d) Medical applications of genetic engineering

-Copyrights Reserved-