THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME
FINAL EXAMINATION - 2011/2012
BOTANY
BOU 3100//BTU 3101/BTE 5101 - ENVIRONMENTAL AND
APPLIED MICROBIOLOGY



## **DURATION – TWO HOURS (2 HRS)**

DATE - 14th June 2012

TIME - 9.30 am - 11.30 am

## ANSWER ANY FOUR (04) QUESTIONS.

- 01. (a) With the help of suitable drawings and named examples, explain briefly the structural and functional features of mycorrhizal associations.
  - (b) With named examples, give a concise account on the role of microorganisms in cycling of nitrogen.
- 02. (a) Why is it important to treat sewage (waste water) before releasing into natural water bodies?
  - (b) Describe the treatment processes of sewage in a conventional sewage treatment plant.
- 03. (a) Differentiate between acquired and innate (natural) immunity.
  - (b) Explain briefly the types of innate immunity.
  - (c) Giving examples, write a short account on various types of acquired immunity of an individual.
- 04. Give an account of principles and processes involved in the preservation of food.
- 05. Give a concise account of the use of microorganisms on each of the following.
  - (a) Dairy industry
  - (b) Bioremediation
  - (c) Pharmaceutical industry

- 06. Write short notes on the following.
  - (a) Microbial deterioration of wood
  - (b) Medical applications of genetic engineering
  - (c) Microbial communities in an aquatic habitat

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