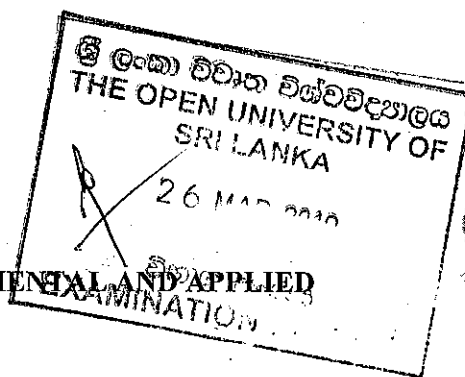


THE OPEN UNIVERSITY OF SRI LANKA
 B.Sc. DEGREE PROGRAMME – LEVEL 5
 FINAL EXAMINATION - 2017/2018
 BOTANY
 BOU3100/BYU 5300/BYE5300 - ENVIRONMENTAL AND APPLIED
 MICROBIOLOGY
 DURATION – TWO (02) HOURS



Date – 26th March 2019

Time – 9.30 am-11.30 am

ANSWER ANY FOUR (04) QUESTIONS.

1. a. Define the following terms.
 - (i). Mutualism
 - (ii). Parasitism
 - (iii). Predation

Give an example for each of the above.
- b. With the help of named examples and suitable drawings, explain the structural and functional features of mycorrhizal associations.
2. a. What is meant by eutrophication?
- b. Indicate the types of primary producers in a fresh water ecosystem and give two (02) examples for each type.
- c. Explain the factors that may affect the occurrence and distribution of microorganisms in water.
3. Give a concise account of the use of microorganisms in industry.
4. Write short notes of on the following.
 - a. Activated sludge process in sewage treatment
 - b. Microbial deterioration of wood
 - c. Action of interferons on viruses
5. a. Explain “Recombinant DNA Technology”.
- b. List the important characteristics of a “vector” used in Recombinant DNA Technology.
- c. Give a concise account on the application of Recombinant DNA Technology in medicine and agriculture.

6. Differentiate between the following.
- a. Exotoxins and endotoxins
 - b. Natural immunity and acquired immunity
 - c. Pasteurized milk and sterilized milk
 - d. Microbial pesticides and chemical pesticides
 - e. Dermatomycoses and systemic mycoses

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