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Total Pages : 3

Roll No.

EVS-507

Environmental Microbiology and Biotechnology

M.Sc. Environmental Science (MSCES-21)

2nd Semester Examination, 2022 (June)

Time : 2 Hours]

Max. Marks : 80

Note : This paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Twenty (20) marks each. Learners are required to answer any Two (02) questions only.

(2×20=40)

1. What is microbiology? Explain the diversity and ecological significance of the microorganisms.

2. What are aquatic ecosystems? Discuss about the types and components of aquatic ecosystems.
3. Discuss in detail about the types of pollutants.
4. What do you understand about the waste water treatment? Explain about the types of waste water.
5. Discuss in detail about the Bioremediation. Explain about the technologies for Bioremediation.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only. (4×10=40)

1. Are microbes useful or harmful ? Explain in detail.
2. Discuss about microbial ecology and role of microorganism in ecosystem.
3. What is Virus? Discuss about the structure and replication process of the virus.
4. Differentiate between Prokaryotes and Eukaryotes.

5. Discuss about the Heterotrophic Metabolism in microbes.
 6. What is genetic engineering? Discuss about the cloning of genes.
 7. Discuss about the methods of Water Treatment at Point of Use (POU).
 8. What is microbial cell/enzyme technology? Discuss about the types of microbial enzymes.
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