

MASTER OF SCIENCE (MICROBIOLOGY) (CBCS - 2018 COURSE)
M.Sc. (Microbiology) Sem-I : WINTER :- 2021
SUBJECT: MICROBIAL ECOLOGY

Day : Wednesday
Date 9/2/2022

W-18586-2021

Time : 02:00 PM-05:00 PM
Max. Marks: 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** Marks.
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Q.1 Explain role of quantitative ecology with reference to microbial ecology. **(15)**

OR

What is bioleaching process? Describe bioleaching process of Copper and Gold in detail.

Q.2 a) Give detail of development of microbial communities and ecosystem. **(08)**

b) "The risk of introducing genetically modified microorganisms"-Justify **(07)**

Q.3 Answer any **THREE** of following :- **(15)**

- a) Explain importance of diversity and stability in microbial communities.
- b) Define concept of biodeterioration. Write different methods used to control biodeterioration process.
- c) Describe ecology of extreme environments- Hot springs, Sea and Salt lakes.
- d) Write note on biofuel production of ethanol.

Q.4 Write note on any **THREE** of the following :- **(15)**

- a) Biodiversity conservation
- b) Ribosomal RNA analysis for tracing microbial evolution
- c) Bacterial biopesticides
- d) Microbial assimilation of metals

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