

SUBJECT : ELECTIVE – MICROBIAL ECOLOGY

Day : Monday
Date : 15/04/2019

Time : 03.00 PM TO 06.00 PM
Max. Marks : 60

S-2019-1206

N. B. :

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labelled diagram **WHEREVER** necessary.
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Q. 1 Explain in detail concept of biodiversity. State all methods and steps to preserve biodiversity. (15)

OR

What is amensalism? Explain mode of action of bacterial biopesticide.

Q. 2 a) Describe different abiotic limitations to microbial growth. (10)

b) Explain the bioleaching of gold and uranium. (05)

Q. 3 Attempt **ANY THREE** of the following: (15)

a) Explain biodeterioration with any one example. Elaborate the different methods of controlling biodeterioration.

b) Explain the steps involved in biofilm formation. Describe the methods of biofilm inhibition.

c) State the significance of rRNA in microbial ecology.

d) What is pathogenesis? Write various routes of plant pathogen entry.

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

a) Biofuel production

b) Recovery of petroleum

c) Quantitative Ecology

d) Determination of microbial numbers

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