

**M. SC. (MICROBIOLOGY) SEM-I (C.B.C.S.) (2012 COURSE) :
SUMMER - 2018**

SUBJECT : ELECTIVE – I : MICROBIAL ECOLOGY

Day : **Wednesday**
Date : **18/04/2018**

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

S-2018-0904

N. B. :

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labeled diagram **WHEREVER** necessary.
-

Q. 1 Describe in detail the concept of microbial communities and ecosystem. (15)

OR

Describe bioleaching. Explain the process of bioleaching of any two metals. (15)

Q. 2 a) Mention in detail effect of environmental determinants on microbial life with reference to extreme temperature, salts and solutes. (10)

b) Write a note on Biofilm and methods to control. (05)

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

- a) Describe bio-deterioration of paper, textile and rubber.
- b) Describe briefly types of biodiversity.
- c) Mention the methods used to detect microbial populations.
- d) Write note on Biofuel production.

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

- a) Microbial Evolution
- b) Bacterial biopesticide
- c) Quorum sensing
- d) Abiotic limitations to microbial growth

* * * * *