

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

WINTER - 2017

SUBJECT : ELECTIVE : a) MICROBIAL ECOLOGY

Day : Tuesday
Date : 31/10/2017

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

W-2017-0804

N.B.:

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

Q.1 Define the concept of biofilm. Write short note on its control. **[15]**

OR

Describe Bioleaching of metals (any two).

Q.2 a) Mention the concept of Quantitative Ecology and describe how the microbial populations are determined. **[10]**

b) Describe the mechanism of production of Methane. **[05]**

Q.3 Attempt **ANY THREE** of the following: **[15]**

a) Explain the mechanism of bacterial biopesticides.

b) Describe biodeterioration of pharmaceutical products.

c) Define different steps to preserve biodiversity.

d) State the examples of extreme environments. (any two)

Q.4 Write short notes on **ANY THREE** of the following: **[15]**

a) 16S RNA importance

b) Plant defense mechanisms

c) Metallic transformation of Mercury

d) Risk of introducing genetically modified micro-organisms

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