

M. SC. (Microbiology) SEM-I (CBCS 2018 Course) : WINTER - 2018

SUBJECT: ELECTIVE: a) MICROBIAL ECOLOGY

Day : Tuesday
Date : 16/10/2018

W-2018-1017

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

N. B. :

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labeled diagram **WHEREVER** necessary.
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Q.1 Define biodiversity and its various types. Add note on steps to preserve biodiversity. **(15)**

OR

Describe the significance of genetic basis for evolution and the method used for tracing microbial evolution.

Q.2 a) Discuss the risks of introducing genetically modified organisms. **(10)**

b) Explain the importance of sample collection and processing in Quantitative Ecology. **(05)**

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

- a) Describe the extreme environments and illustrate in detail environment of Antarctica and ocean bottom.
- b) Define biodeterioration and explain in detail biodeterioration of wood.
- c) Explain the importance and mode of action of enzymes and toxins in plant diseases.
- d) Explain the mechanism of Biobleaching of Uranium

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

- a) The mechanism of action of fungal biopesticide.
- b) Role of microorganisms in formation of methane (as an energy source)
- c) Various routes for entry of pathogens in plant
- d) Control of biofilm

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