

**T.Y.B.SC. SEM – VI (CBCS - 2016 Course) : SUMMER - 2019**  
**SUBJECT: ELECTIVE a) AGRICULTURAL AND ENVIRONMENTAL**  
**MICROBIOLOGY**

Day : Wednesday  
Date : 24/04/2019

**S-2019-0923**

Time : 03.00 P.M. To 06.00 P.M  
Max. Marks: 60

N.B.

- 1) All Questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Assume suitable diagram wherever **NECESSARY**.

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**Q.1** Attempt **ANY TWO** the following: (12)

- a) Describe in detail types of marine pollution.
- b) Write note on biogas production.
- c) Explain in detail method used for recycling of agricultural waste.

**Q.2** Attempt **ANY TWO** the following: (12)

- a) Explain in detail concept of biomonitoring and its advantages and disadvantages.
- b) State about geomicrobiology. Describe its *in situ* processes.
- c) Write note on host parasite relationship.

**Q.3** Attempt **ANY TWO** the following: (12)

- a) Define bioinoculants. Mention its types.
- b) Write note on citrus canker disease.
- c) Define bioleaching. Enlist its beneficiation processes.

**Q.4** Attempt **ANY THREE** the following: (12)

- a) Define methods of preparation of bioinoculant.
- b) Define organic and inorganic pollutants in water.
- c) Explain efforts used to control and protect marine environment.
- d) Explain TMV disease symptoms and control measures.

**Q.5** Attempt **ANY FOUR** the following: (12)

- a) Write note on *Azotobacter* as bioinoculant.
- b) Describe biochemistry underlying in production of biogas.
- c) Explain advantages and disadvantages of Bioleaching.
- d) Define microbial approaches used in remediation of oil contaminated sites.
- e) Explain effects of various pollutants on water.
- f) Describe methods used for inoculation of bioinoculant.