

**SUBJECT: MICROBIOLOGY: AGRICULTURAL AND ENVIRONMENTAL
MICROBIOLOGY**

Day : Monday
Date : 30/10/2017

W-2017-0686

Time : 12.00 NOON TO 02.00 PM
Max. Marks: 40.

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate full marks.
 - 3) Draw neat and labeled diagrams **WHEREVER** necessary.
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Q.1 Attempt any **TWO** of the following: **(10)**

- a) Explain the concept of biostimulation and augmentation.
- b) Discuss the advantages and disadvantages of biomonitoring.
- c) Discuss the nitrification and denitrification reactions in nitrogen cycle.

Q.2 Attempt any **TWO** of the following: **(10)**

- a) Give the examples and applications of bacterial bio-control agents.
- b) Describe biochemistry of biogas generation.
- c) Discuss the effects of organic and inorganic pollutants on biosphere.

Q.3 Write short notes on any **TWO** of the following: **(10)**

- a) Sources of marine pollution
- b) Citrus canker
- c) Copper leaching

Q.4 Attempt any **FIVE** of the following: **(10)**

- a) Soil sickness
- b) Soil colour
- c) Types of compost
- d) Radioactive pollutants
- e) Examples of fungal biopesticides
- f) Control of marine environment
- g) Microbial inoculation.

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