ГМ154030А	Reg. No:
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# M. Sc. DEGREE (C.S.S.) EXAMINATION, MARCH 2017 SEMESTER IV - BOTANY BO4EA1TM - FOOD AGRICULTURAL AND ENVIRONMENTAL MICROBIOLOGY

Time: Three Hours Maximum Marks: 75

#### PART A

## I. Answer any five questions. Each question carries 3 marks

- 1. Explain Catalase test.
- 2. Define Bioaugmentation
- 3. Explain Secondary waste water treatment.
- 4. Describe role of Entomopathogenic fungi as biopesticide.
- 5. What is Viral Intoxication?
- 6. Write notes on Food preservation using Osmotic pressure.
- 7. Comment on Ecto-and Endo mycorrhiza.

(5x3 = 15)

#### **PART B**

### II. Answer any six questions. Each question carries 5 marks

- 8. Write notes on fermented milk products with examples and microbes involved.
- 9. Differentiate between phytoextraction and phyto transformation.
- 10. Write notes on Bacterial insecticides?
- 11. Explain Shigellosis and Botulism.
- 12. What you mean by Good manufacturing practises
- 13. Explain Bacterial growth curve.
- 14. Explain the role of soil as habitat for microbes
- 15. Comment on Phosphate solubilizers.
- 16. What is (a) Metagenomics
- (b) Microbial leaching

(6x5=30)

# PART C

# III. Answer any two questions. Each question carries 15 marks

- 17. Discuss the role of microbes in the management of organic as well as inorganic wastes
- 18. Explain the methods involved in detection of coliform bacteria.
- 19. Write notes on microbial flora in food and food spoilage
- 20. Explain the use of Microbes as biofertilizers.

(2x15=30)