

**FACULTY OF SCIENCE**

**M.Sc. II-Semester Examination, May / June 2017**

**Subject: Microbiology  
Paper- II  
Environmental & Agriculture Microbiology**

**Time : 3 Hours**

**Max. Marks: 80**

**PART – A (8x4=32 Marks)  
(Short Answer Type)**

1. Oxidation Ponds
2. Septic Tank
3. Biodegradable plastic
4. Pesticides
5. Carbonaceous material in soil
6. Nitrate and Phosphate pollution
7. Blue green algae
8. Mycorrhizae

**PART – B (4x12=48 Marks)  
(Essay Answer Type)**

- 9.(a) Explain the mechanism of Aerobic sewage treatment  
**OR**  
(b) Write an essay on anaerobic sewage treatment methods.
- 10.(a) Discuss the role of microorganisms in the degradation of organic pollutants.  
**OR**  
(b) Give a detailed account on biogeochemical cycles.
- 11.(a) Write an essay on decomposition of carbonaceous materials in soil.  
**OR**  
(b) What is Denitrification? Explain the microbial mechanism of Denitrification.
- 12.(a) Write an essay on symbiotic and asymbiotic nitrogen fixation.  
**OR**  
(b) Give a detailed account of different types of Biofertilizers.

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