

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



**B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY**

**SIXTH SEMESTER – APRIL 2018**

**PB 6610– ENVIRONMENTAL BIOTECHNOLOGY**

Date: 10-05-2018  
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

**PART - A**

**Answer the following, each within 50 words.**

**(10 x 02 =20 marks )**

1. What is composting?
2. What is recycling?
3. What is biosorption?
4. Define effluent
5. What are xenobiotics?
6. Define biotransformation.
7. What are the advantages of bioremediation?
8. What are the environmental factors affecting bioremediation?
9. Define biofilm.
10. What is biomineralization?

**PART - B**

**Answer the following, each within 500 words; draw diagrams and flow charts**

**wherever necessary**

**(5 x 7 = 35 marks )**

11a. Write the causes of air and water pollution.

**(OR)**

b. Explain the method of hydrogen production using different waste materials.

12a. Give an account on structure and functioning of Tickling filters.

**(OR)**

b. How will you remove oil spills by using microbes?

13a. Explain the biological treatment for soil pollutants.

**(OR)**

b. Write the various mechanisms involved in bioremediation of xenobiotics.

14a. Comment on slurry bioreactor.

**(OR)**

b. Give a brief account on low shear air lift bioreactor.

15a. Explain pollution by radionuclides.

**(OR)**

b. Write briefly about the structure and development of biofilm.

**PART - C**

***Answer any three of the following, each within 1200 words; draw diagrams and flow charts wherever necessary. (3 x 15 = 45 marks)***

16. Write an essay on biogas production.

17. Explain biological treatment of sewage.

18. Describe biodegradation of phenol and polychlorinated biphenyl.

19. Write the types of bioremediation.

20. Illustrate the role of microorganisms and methods involved in bioleaching.

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