

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



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

SIXTH SEMESTER – NOVEMBER 2016

PB 6610/PB 6605 – ENVIRONMENTAL BIOTECHNOLOGY

Date: 15-11-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

PART – A

Answer the following, each within 50 words

(10x2=20 marks)

1. What is bioaccumulation?
2. Define nonconventional energy.
3. Define trickling filter method.
4. What is oil spill?
5. Expand R.B.C.
6. Define xenobiotics.
7. What is bioaugmentation?
8. Define bioremediation.
9. What is biofilm?
10. Define bioleaching.

PART – B

Answer the following, each within 500 words, Draw Diagrams and Flowcharts whenever necessary

(5x7=35 marks)

11. (a) Explain the mechanism of Biogas Production.
(OR)
(b) Examine the causes and effects of water pollution.
12. (a) Give a brief account on the working of trickling filter.
(OR)
(b) Write a brief note on removal of oil spills by using microbes.
13. (a) Give an account of the effects of soil pollution.
(OR)
(b) Explain the biodegradation of PCP and PCB.
14. (a) What are the major types of bioremediation?
(OR)
(b) List out the types of phytoremediation.
15. (a) Explain the major sources and types of radiation.
(OR)
(b) Write a brief note on bio corrosion.

PART – C

Answer any THREE of the following, each within 1200 words, Draw Diagrams and Flowcharts whenever necessary **(3x15=45 marks)**

16. Write an essay on non-conventional energy sources.
17. Discuss the treatment of industrial effluents using bioreactors.
18. Explain in detail about the purification of polluted air using Bio filters.
19. Define *exsitu*, and *insitu* bioremediation explain how they are performed.
20. Define biomineralization, and state the techniques involved in bioleaching.
