



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & PLANT BIO-TECH.

SIXTH SEMESTER – APRIL 2013

PB 6610/PB 6605 - ENVIRONMENTAL BIOTECHNOLOGY

Date: 27/04/2013
Time: 1:00 - 4:00

Dept. No.

Max. : 100 Marks

PART – A

ANSWER THE FOLLOWING, EACH WITH 50 WORDS ONLY: (10 X 2 = 20)

1. What is Composting?
2. Write short notes on Packed bed reactor.
3. What are Xenobiotics?
4. Define Biomagnification.
5. Write short notes on RBC.
6. Define bioaugmentation.
7. What are Anthropogenic sources?
8. What do you mean by a biofilter?
9. What are Radionuclides?
10. What is Biofilm?

PART – B

**ANSWER THE FOLLOWING, EACH ANSWER WITHIN 500 WORDS.
DRAW DIAGRAM WHEREVER NECESSARY: (5 X 7 = 35)**

11. a) Discuss any three causes for soil, water and air pollution.
(OR)
b) Explain the method of obtaining biogas using different wastes materials.
12. a) Explain activated sludge process.
(OR)
b) Give an account of trickling filters and its application.
13. a) Explain the biological treatment procedure for air pollutants.
(OR)
b) Give an account of removal of heavy metals using micro organisms.

14. a) Briefly write about the various mechanisms involved in bioremediation.
(OR)
b) Draw a neat labeled diagram of a typical bioreactor.
(Diagrammatic representation only)
15. a) What are the modes of Biomineralization?
(OR)
b) What are the major sources of radiation? Suggest methods for the bioremediation of radio nuclides.

PART – C

**ANSWER ANY THREE OF THE FOLLOWING. EACH WITHIN 1200 WORDS.
DRAW DIAGRAM WHEREVER NECESSARY: (3 X 15 = 45)**

16. Discuss about the various types of alternate sources of energy.
17. What is oil spill ? Explain its Bioremediation.
18. Write notes on methods of biogradation of xenobiotics with examples.
19. What is Bioremediation? Explain insitu and exsitu bioremediation methods.
20. Define Bioleaching. Give an account of microorganisms involved mechanism and methods of bioleaching.

\$\$\$\$\$\$