



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

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

**SIXTH SEMESTER – APRIL 2024**

**UPB 6503 – ECOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY**

Date: 05-04-2024

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

**Section A**

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

**(10 x 2 = 20 marks)**

1. What is ecosystem?
2. Define energy flow.
3. Mention the roles of FAO
4. What is genetic diversity?
5. What is pesticide pollution?
6. Define biomagnification.
7. Distinguish between biostimulation and bioaugmentation.
8. What is biosorption?
9. Write notes on biofloc.
10. What are radionuclides?

**Section B**

**Answer ANY 4, each within 500 words. Draw diagrams and flowcharts wherever necessary.**  
**( 4 x 10 = 40 marks)**

11. Write notes on structure and development of biofilm.
12. Describe the structural components of pond ecosystem.
13. Give a brief account on centres of origin of cultivated plants.
14. Write briefly about causes and consequences of water pollution.
15. Briefly write about *ex situ* bioremediation.
16. Elaborate on the various types of phytoremediation techniques.
17. Elucidate the various methods used in the biological degradation of petroleum hydrocarbon.
18. Explain the microbial degradation of Polychlorinated biphenyl.

**Section C**

**Answer ANY 2 of the following, each within 1200 words. Draw diagrams and flowcharts wherever necessary.**  
**(2 x 20 = 40 marks)**

19. Write an essay on the structural and functional components of ecosystem.
20. Explain about the *in situ* and *ex situ* conservation of biological diversity.
21. Discuss in detail about the types, causes, ecological effects and control of air pollution.
22. Describe the structure and working of Trickling filter and Rotating biological contactors.

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