

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



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

**SIXTH SEMESTER – APRIL 2022**

**UPB 6503 – ECOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY**

Date: 20-06-2022

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

**PART – A**

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

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

1. What is energy flow in the ecosystem?
2. Comment on ecad.
3. Write notes on gene banks.
4. What is hotspot?
5. Give the reasons for acid rain.
6. What is the composition of biogas?
7. What is phytoextraction?
8. What are xenobiotics? Give examples.
9. What is a biofilm?
10. What is activated sludge?

**PART – B**

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

**Answer the following, each within 500 words. Draw diagrams and flowcharts wherever necessary.**

11. (a) Describe the various edaphic factors of the ecosystem.  
(or)  
(b) Summarize the salient features of pond ecosystem.
12. (a) Describe the types of biodiversity.  
(or)  
(b) Write an account on FAO and CGIAR.
13. (a) What are the impacts of heavy metal pollution?  
(or)  
(b) Write an account on composting and silaging.
14. (a) Explain phytoremediation with examples.  
(or)  
(b) What is bioremediation? Explain various mechanisms involved in bioremediation.
15. (a) Describe the various methods adopted in secondary treatment of sewage.  
(or)  
(b) Describe the types of air filters used in the purification of air.

Answer any THREE of the following, each within 1200 words. Draw diagrams and flowcharts wherever necessary.

16. Write an essay on food web and the various types of ecological pyramids.
17. Describe the various methods adopted for conservation of biodiversity.
18. Write an essay on the importance of non-conventional energy resources.
19. Explain the role of bioreactors in bioremediation.
20. Describe the various methods adopted for the removal of oil spills.

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