



Date: 05-04-2019  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

**PART A**

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

*Answer the following, each within 50 words.*

1. What are abiotic factors?
2. Differentiate food chain from food web.
3. List the non-conventional energy resources.
4. Give any four important air pollutants and mention its source.
5. What is a superbug?
6. What is bioventing?
7. What is meant by activated sludge?
8. What is biofilm?
9. What is xenobiotic? Give examples.
10. What are the ill effects of radioactivity?

**PART B**

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

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

11. a. Write an account on the productivity and energy flow in an ecosystem.

[OR]

- b. Describe the various types of ecological pyramids.

12. a. Explain the importance and sources of hydrogen production.

[OR]

- b. Write an account on composting and silaging.

13. a. Explain the various factors that influence bioremediation.

[OR]

- b. Write an account on the bioreactor used in bioremediation.

14. a. Write notes on activated sludge process.

[OR]

- b. Write a detailed account on removal of oil spills by microbes.

15.a. Describe the pathway in the degradation of phenols.

[OR]

b. Write an account on the biodegradation of polychlorinated biphenyls.

**PART C**

**( 3 x 15 = 45marks)**

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

16. Give a detailed account on conservation of biodiversity.

17. Write about the composition, production and advantages of biogas.

18. Write an essay on the *ex situ* and *in situ* bioremediation methods.

19. Write an essay on the methods adopted to remove heavy metals and pesticides from the environment.

20. Write an essay on air pollution and purification using air filters.

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