**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86**
**DEPARTMENT OF BIOTECHNOLOGY**
**END SEMESTER EXAMINATION – NOVEMBER 2021**
**ENVIRONMENTAL BIOTECHNOLOGY**

**SUBJECT CODE: 19BY/PC/ET 34** **TIME: 3hours**
**CLASS: II M.Sc.** **MAX MARKS: 100**

## Section A

**Answer all the questions** **(15 x 2 = 30)**

1. Give a note on land pollution and its effects.
2. Differentiate Habitat and Niche related to ecosystem.
3. Define population ecology with examples.
4. Write the note on impact of air pollution to the atmosphere.
5. What is remote sensing and GIS?
6. Write a brief on the bioindicators.
7. What are Biosensors in environmental monitoring? give examples.
8. Brief on E-wastes and its treatment.
9. What is the significance of composting in solid waste management?
10. What are radioactive labelled isotopes?
11. Write the role of GMOS in environmental management.
12. Give the significance of bioprospecting.
13. What is rhizofiltration and phytoextraction process?
14. Write a note on the fate of pesticides in soil.
15. Write on microbial fuel cell.

## Section B

**Answer all the questions** **(5 x 10=50)**

16. (a) Write a detail account on the Habitat and Niche in detail.

(or)

(b) Write an account on Population Ecology, R & K selection and concept of meta population.

17. (a) What is ozone layer depletion and acid rain and its impact to the environment.

(or)

(b) Give an account on Ecological Mapping and Ecological Modeling.

18. (a) Write a brief note on dairy industry and its wastewater treatment.

(or)

(b) Write a brief note on nuclear power plant waste treatment strategies.

19. (a) Explain on the r DNA techniques used in waste treatment.

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(or)

(b) Describe the different types of biosensors used in pollution monitoring.

20. (a) Discuss the bioleaching process and metal recovery.

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(or)

(b) Write a note on different types of phytoremediation process.

## Section C

**Answer any one question** **(1x20=20)**

21. Explain in detail on different methods of sewage wastewater treatment with the techniques.

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22. Give an account on Bioremediation of Petroleum Hydrocarbons and processes involved in textile industry and its treatment.

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