

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 86

(For candidates admitted from the academic year 2019 - 2020)

B.Sc. DEGREE EXAMINATION, NOVEMBER - 2021

Branch V (A) – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

COURSE: MAJOR CORE

TIME: 3 HOURS

PAPER : ECOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY

SUBJECT CODE: 19BT/MC/EE54

MAX.MARKS: 100

SECTION – A

ANSWER THE FOLLOWING QUESTIONS

I. Fill in the blanks:

(9 x 1 = 9 Marks)

1. The main cause behind the development of vertical stratification is _____.
2. In India, water quality monitoring is done by _____.
3. The accumulation of DDT has decreased the population of bald head eagle because it _____.
4. If 4 species of *Leucas aspera* occur in 8 sample plots, out of total of 16 sample plots studied the abundance of *Leucas aspera* is _____.
5. The ecosystem which is known as “nursery of sea” is _____.
6. Lead accumulates in _____ of fishes.
7. “Guardians of the coast” is the common name of _____ forest.
8. The first of EIA is _____.
9. Filtering water through a mass of roots to remove toxic substances is called _____.

II. Answer any **THREE** each with 50 words

(3 x 3 = 9 Marks)

10. Periodicity
11. Homeostasis
12. Ecological adaptations of xerophytes
13. Bioindicators

SECTION B

Answer any **TWO** of the following questions. Each answer should not exceed

200 words. (Draw diagrams wherever necessary)

(4 x 6= 24 Marks)

14. Define Bioremediation. Give account on different types of bioremediation.
15. Describe Raunkiaer’s Biological Spectrum.
16. Briefly discuss the stages in Environmental Risk Assessment.

SECTION C

Answer any **ONE** of the following questions. Each answer should not exceed

1000 words. (Draw diagrams wherever necessary)

(2 x 20= 40 Marks)

17. Describes the biotic components of an ecosystem with suitable examples from terrestrial and aquatic ecosystem.
18. Describe the types of Transect methods used to sample a population. Add a note on its advantages and disadvantages.