

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2019 – 2020)

SUBJECT CODE: 19ZL/MC/EC64

B. Sc. DEGREE EXAMINATION APRIL 2022
BRANCH VIA. ADVANCED ZOOLOGY & BIOTECHNOLOGY
SIXTH SEMESTER

COURSE : MAJOR CORE
PAPER : ECOLOGY
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS :

(10 X 3 = 30)

1. Define

(a) Autecology (b) Synecology (c) pH.

2. State Jenny CLORPT equation.

3. How does biomass pollute the environment? List any two sources of biomass.

4. What is meant by carbon sequestration? Give an example.

5. Distinguish between lentic and lotic habitats.

6. Illustrate and label the different regions in a cave.

7. Illustrate water cycle and list the various steps involved in it.

8. Comment on Project Elephant. Who launched it?

9. Write the significant digits for the numbers given below

(a) 0.075 (b) 17.237 (c) 21.47

10. The scores obtained by 25 students in a monthly test are as follows:

15, 13, 16, 16, 15, 16, 17, 14, 15, 16, 16, 17, 14, 17, 17, 16, 14,

15, 16, 17, 14, 16, 15, 17, 13

Prepare a frequency distribution table for the above given data using tally marks.

SECTION – B

ANSWER ANY FIVE QUESTIONS :

(5 X 6 = 30)

11. Why is soil considered to be a life support system? Explain the process of soil formation with a neat, labelled diagram.

12. Enumerate the adaptations of animals inhabiting deserts.

13. Illustrate and explain the horizontal stratification of an estuary. Add a note on their types.

14. What is the status of biodiversity in India? Comment on any four biodiversity hotspots in our country.
15. Explain the various steps that are to be followed in the process of data collection.
16. How do the abiotic factors influence an environment? Discuss the concept of thermal stratification in lake with a suitable diagram.
17. Define ecotone. Discuss the vulnerability and current status of Shola forests.

SECTION – C

ANSWER ANY TWO QUESTIONS :

(2 X 20 = 40)

18. Summarise the biological effects of light on animals and plants. Add a note on the spectral composition of light.
19. Give a detailed account on the principal biomes of the world with suitable examples.
20. Explain the classification of marine habitat and discuss the adaptations of deep sea fauna. Illustrate your answer.
21. (a) The following data shows the number of various mammals recorded in four zoological parks across the major cities of India. Represent the given data in the form of multiple bar, component bar, percentage bar and percentage pie diagrams.

City	Number of Mammals			
	Lion	Tiger	Elephant	Monkey
Chennai	8	12	20	60
Mumbai	10	10	12	68
Kolkata	5	15	15	65
Hyderabad	3	17	10	70

- (b) Define mean, median and mode. Compute the mean and median for the following data comprising of different weights of a particular species of frog.
Weight in grams: 16, 11, 8, 10, 14, 16, 9, 9, 13 and 12
