

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

**SUBJECT CODE: 19ZL/ME/IB45**

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

**COURSE : MAJOR CORE**  
**PAPER : INTRODUCTION TO MARINE BIOLOGY**  
**TIME : 3 HOURS** **MAX. MARKS: 100**

**SECTION – A**

**ANSWER ALL QUESTIONS :** **(10 X 3 = 30)**

1. What is meant by Imposex?
2. Distinguish between foraminiferans and radiolarians.
3. Give any three examples of antibiotic compounds obtained from marine sources.
4. Mention the significance of microbial biofilms.
5. Comment on marine mussel bioadhesion.
6. Name the following:
  - a. India's first camp in Antarctica
  - b. An Annelid worm discovered near hydrothermal vents
  - c. An app that helps in navigating the seas
7. Differentiate between the following:
  - a. Continental Shelf and Continental Slope
  - b. Active and Passive Sonar
8. Highlight the ecological role played by halophytes.
9. Define the Exclusive Economic Zone.
10. Illustrate how fossilization takes place in the marine environment.

**SECTION – B**

**ANSWER ANY FIVE QUESTIONS :** **(5 X 6 = 30)**

11. Elaborate on the origin of tsunamis and the damage caused by them. How can this damage be avoided?
12. Giving suitable examples, describe the adaptations in pelagic animals.
13. "Mangroves plantations are a key strategy in countering climate change and conserving biodiversity". Justify and add a note on the threats faced by mangrove ecosystems.
14. Analyse the impact of oil spills on the marine ecosystem.
15. Describe the outcome of overfishing on the marine ecosystem.
16. Discuss the current status of mariculture.
17. Explain the importance of probiotic bacteria in aquaculture.

**SECTION – C**

**ANSWER ANY TWO QUESTIONS :** **(2 X 20 = 40)**

18. Elaborate on the diversity, adaptations and unique behaviour of sea birds.
19. Describe the topography of the sea floor and discuss the adaptations exhibited by fauna that inhabit this diverse topography.

20. Describe the role played by biofouling organisms, problems caused and control of biofouling.
21. Summarise the characteristics, role in the marine ecosystem and applications of marine microbes with reference to bacteria and fungi.

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