

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086**  
(For candidates admitted during the academic year 2015 – 2016 & thereafter)

**SUBJECT CODE: 15ZL/ME/EB55**

**B. Sc. DEGREE EXAMINATION APRIL 2019**  
**BRANCH VI.A. ADVANCED ZOOLOGY & BIOTECHNOLOGY**  
**SIXTH SEMESTER**

**COURSE : MAJOR CORE**  
**PAPER : ENVIRONMENTAL BIOTECHNOLOGY**  
**TIME : 3 HOURS** **MAX. MARKS: 100**

**SECTION – A**

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

1. Define Bioindicators.
2. Differentiate Biomarkers from Biosensors.
3. Comment on GMOs.
4. Write a note on bioremediation.
5. Define anaerobic digestion.
6. Expand STP and ETP.
7. Comment on distillation.
8. Mention the ecological implications of oil spill.
9. What are biofertilizers?
10. Write a note on radioactive wastes.

**SECTION – B**

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

11. Write an account on the importance of environmental monitoring.
12. Briefly explain the sampling of Air, Soil and Water.
13. Write an account on Acidic Mine Drainage in Yellow stone National Park.
14. Bring out a brief account on removal of nitrogen from agricultural waste.
15. Briefly explain the treatment of agricultural wastes.
16. Explain briefly the advantages of biofertilizers in Agro Ecosystem
17. Write an account on bioleaching.

**SECTION – C**

**ANSWER ANY TWO QUESTIONS :**

**(2 X 20 = 40)**

18. Discuss in detail the toxicity testing using biological material.
19. Write an essay on *In Situ* and *Ex Situ* bioremediation techniques.
20. Outline the treatment of Industrial Effluents with a suitable example.
21. Write an account on the following
  - a) Enhanced Oil Recovery
  - b) Microbially Enhanced Oil recovery

**\*\*\*\*\***