



MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No. :

Name :

Sixth Semester Career Related B.Sc. Degree Examination, April 2018

First Degree Programme under CBCSS

Vocational Course – XIII : Biotechnology (for Botany and Biotechnology)

AUBB652: Environmental Biotechnology

(Common for **Regular** – 2015 and **Reappearance** – 2014 Admn.)

Time: 3 Hours

Max. Marks: 80

SECTION – A

*Answer **ALL** the following each in a word or as short notes.*

1. What is bioaugmentation?
2. What is meant by biomass?
3. Light stratification of sea.
4. Photochemical smog.
5. What is gasohol and gasoline?
6. Bioindicators.
7. Nitrogen cycle.
8. Biomagnification.
9. Xenobiotics.
10. Trickling filter.

(10 × 1 = 10 Marks)

SECTION – B

*Answer any **EIGHT** questions Each question carries **2** marks.*

11. Give a note on biogeochemical cycle.
12. Biodiversity and different levels of biodiversity.
13. What is biomineralization?
14. Give a note on activated sludge process.
15. In what way biofertilizers differ from conventional fertilizers?

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16. Differentiate between Sand Silt and Clay.
17. Eutrophication and its impact on biomes.
18. Compare and contrast biotransformation and co-metabolism.
19. What is Bioremediation? What are the types of bioremediation?
20. Mycorrhiza and types of mycorrhiza.
21. Bio assessment of water quality.
22. Define COD and BOD.

(8 × 2 = 16 Marks)

SECTION – C

*Answer any **SIX** questions. Each question carries 4 marks*

23. Use of biotechnology in treatment of waste water.
24. Define Biosphere. What are the components of biosphere?
25. What are solid waste processing methods?
26. Biological control of pests and insects?
27. Give a note on soil profiles with diagram?
28. Define Pollution. What are the methods of controlling pollution?
29. Thermal stratification of lake.
30. Explain different stages of Bioethanol production and recovery.
31. Give a note on biomass as source of energy.

(6 × 4 = 24 Marks)

SECTION – D

*Long essay type: Answer any **TWO** questions.*

32. What are the different components of ecosystem and types of ecosystems on biosphere?
33. What are Biofertilizers? List its advantages.
34. Municipal waste water treatment method.
35. Explain renewable and non-renewable energy resources.

(2 × 15 = 30 Marks)