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MAVELIKARA PIN: 6901 10 BB KERALA

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Reg. N	o. :	
Name :		-

Sixth Semester B.Sc. Degree Examination, April 2023

Career Related First Degree Programme under CBCSS

Botany and Biotechnology

Vocational Course

BB 1672 : ENVIRONMENTAL BIOTECHNOLOGY (2019 Admission Onwards)

Time: 3 Hours

Max. Marks: 80

SECTION - A

Answer all the questions in a word or one or two sentences. Each question carries 1 mark.

- 1. Comment on Azolla.
- Identify the contributions of Anand Mohan Chakrabarty.
- Write the composition of biogas.
- 4. Comment on The Environment (Protection) Act, 1986
- 5. What is bioaugmentation?
- 6. What is Fecal Coliform?
- 7. Which microorganisms are in biomining?
- 8. Name the organism used in vermicomposting.

- 9. What is Total coliform count?
- 10. List the uses of Bacillus thuringiensis

 $(10 \times 1 = 10 \text{ Marks})$

SECTION - B

Answer any eight questions. Each questions carries 2 marks. (Answer not to exceed one paragraph)

- 11. Identify the importance of Rhizobium.
- 12. What are methanogens?
- 13. Give a note on Jatropha.
- 14. What are Indicator organisms?
- 15. What is biodiesel?
- 16. What is vermicomposting?
- 17. What is air pollution? Add a note on air pollutants.
- 18. Explain MPN.
- 19. Give note on lagooning.
- 20. What is meant by energy crops?
- 21. Comment on mycorrhizae.
- 22. Define bioleaching.

 $(8 \times 2 = 16 \text{ Marks})$

SECTION - C

Answer any six questions. Each question carries 4 marks. (Answer not to exceed 120 words)

- 23. Explain the biological control of pests in agriculture.
- 24. Discuss the types and uses of biofertilizers.
- 25. What are bioplastics? Give note on its advantages and applications.
- 26. Differentiate between BOD and COD.
- 27. Give note on microbial hydrogen production.
- 28. Elaborate the idea of using photosynthetic pigments for the generation of future energy.
- 29. Explain the process of production of biogas.
- 30. Discuss the methods and application of vegetable oil as engine fuels.
- 31. "Biomass is the source for future energy". Justify the comment.

SECTION – D $(6 \times 4 = 24 \text{ Marks})$

Answer any **two** questions. **Each** question carries **15** marks. (Answer not to exceed 3 pages)

- 32. What is meant by pollution? Briefly discuss various types and sources of pollution.
- 33. Explain different methods of sewage treatment.
- 34. Explain different environmental laws in India.
- 35. Discuss various types of solid wastes and add an account on methods of solid waste management.

 $(2 \times 15 = 30 \text{ Marks})$

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