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Reg. No. : .....

Name : .....

Fifth Semester B.Sc. Degree Examination, December 2023

Career Related First Degree Programme under CBCSS

Botany and Biotechnology

Open Course

BB 1551.3 : BASICS OF 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. What is a biodiversity hotspot?
2. How much percentage is freshwater in hydrosphere?
3. Which is the most abundant gas present in the atmosphere?
4. What is the unit of BOD?
5. Why too high COD is harmful to aquatic life?
6. Name an element widely used for cleaning drinking water.
7. What are methanogens?
8. Name the biogas produced from cattle dung.

P.T.O.

9. List a pollutant released by vehicle fuel emission.

10. What is composting?

(10 × 1 = 10 Marks)

SECTION – B

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

11. List the main components of an aquatic ecosystem.

12. Define lithosphere. What is it made of?

13. Discuss the importance of biosphere.

14. Identify any two major gaseous air pollutants.

15. What is gasohol?

16. How bioplastic is being made?

17. What is biomineralisation?

18. Comment on Environment Protection Act, 1986.

19. Mention the importance of biotechnology in environmental protection.

20. State the difference between BOD and COD of wastewater.

21. What is a coliform water test?

22. Brief about the lagooning technique for waste management.

(8 × 2 = 16 Marks)

SECTION – C

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

23. Explain four different layers of atmosphere.

24. Write the features of major types of terrestrial ecosystems.

25. Mention the advantages of biomass energy.

26. What is phytoremediation? Explain its types.

27. What is a sludge? Give the methods for its disposal.

28. Explain the components of hydrosphere.

29. Write a note on toxic industrial effluents and its treatment.

30. Explain how various legislations helps to protect our environment.

31. How microbial quality of water can be assessed?

(6 × 4 = 24 Marks)

SECTION – D

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

32. Elaborate on sources, effects and control measures of major types of pollution.

33. How municipal waste water is being treated? Explain various steps involved in the process.

34. Write an essay on biogas production from waste biomass.

35. Give an account on various forms of solid waste, its management and treatment

(2 × 15 = 30 Marks)
