



CBGS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

18BT821

Eighth Semester B.E. Degree Examination, June/July 2024

Environmental Biotechnology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Discuss the effects of air pollution on vegetation and materials. (10 Marks)
- b. State the sources of heavy metals. Describe various remedial measures to clean up heavy metals. (10 Marks)

OR

- 2 a. Define pollution. Elaborate the sources of water and air pollution. (10 Marks)
- b. Discuss the biosorption and detoxification mechanism in microbes. (10 Marks)

Module-2

- 3 a. Describe the unit operations in aerobic attached growth processes. (10 Marks)
- b. Discuss the applications of treated wastewater. (10 Marks)

OR

- 4 a. Elaborate the various stages of anaerobic digestion. (10 Marks)
- b. Discuss the use of genetically engineered microbes in wastewater treatment. (10 Marks)

Module-3

- 5 a. Discuss the significance of watershed management. (10 Marks)
- b. Explain the causes and effects of ozone layer depletion. (10 Marks)

OR

- 6 a. Discuss the uses and benefits of rain water harvesting. (10 Marks)
- b. Write a brief note on nuclear accidents and holocaust and outline their consequences. (10 Marks)

Module-4

- 7 a. Discuss the food problems faced by the world. (10 Marks)
- b. Write a detailed note on causes of human induced landslides. (10 Marks)

OR

- 8 a. Elaborate the effects of modern agriculture on food resources. (10 Marks)
- b. Discuss the various types of alternate energy sources. (10 Marks)

Module-5

- 9 a. Explain the process of microbial desulphurization of coal. (10 Marks)
- b. Describe the process of copper extraction by heap and dump leaching. (10 Marks)

OR

- 10 a. Discuss the process of bacterial oxidation of chalcopyrite and pyrite. (10 Marks)
- b. Elaborate the microbial process involved in petroleum extraction. (10 Marks)

* * * * *

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.