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Seventh Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 BT for Sustainable Environment

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Describe the sources, types of pollutant and their effects that contribute water pollution. (10 Marks)
- b. With two suitable examples, enumerate biotechnological approach for water purification. (10 Marks)

OR

- 2 a. Discuss the physical and biological characteristics with their permissible and desirable limits. (10 Marks)
- b. With a neat geographical distribution of fresh water, explain the sources of water available for consumption. (10 Marks)

Module-2

- 3 a. With a flow diagram, explain the sludge treatment and disposal process. (10 Marks)
- b. Explain waste water treatment effluent from tannery industry. (10 Marks)

OR

- 4 a. Differentiate between attached and suspended growth process in secondary treatment. (10 Marks)
- b. Explain the role of ultrafiltration and electrodialysis in water purification. (10 Marks)

Module-3

- 5 a. Classify the pollutant of air based on their size. (10 Marks)
- b. Explain the working principle of electrostatic precipitators. (10 Marks)

OR

- 6 a. Describe any 4 Noise measurement equipments. (10 Marks)
- b. How does thermal power plants and cement industries contribute to air pollution and discuss ways to control the same. (10 Marks)

Module-4

- 7 a. Differentiate between conventional and modern fuels and their environmental impacts. (10 Marks)
- b. Discuss methanol production from organic waste. (10 Marks)

OR

- 8 a. Explain the process of gasification with a neat labelled diagram. (10 Marks)
- b. Agricultural waste serves as a source for energy and fertilizer production uphold the statement. (10 Marks)

Module-5

- 9 a. Classify the solid waste based on its properties and types. (10 Marks)
b. Describe the process of solid waste management in Textile industries. (10 Marks)

OR

- 10 a. Emphasize on the ways to emit the production of solid waste to the environment. (10 Marks)
b. Explain the solid waste management strategy in pharmaceutical industry. (10 Marks)

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