

IV B. Tech I Semester Regular Examinations, November – 2022**WASTE WATER TREATMENT****(Open Elective)****Time: 3 hours****Max. Marks: 75**

*Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks*

UNIT-I

- 1 a) Explain the adsorption phenomenon in detail. [7]
b) Describe the ultra-filtration concept in a detailed way. [8]
(OR)
- 2 a) Illustrate the wastewater parametric characterization for sugar mills. [7]
b) Discuss the concepts of Freezing and Elutriation. [8]

UNIT-II

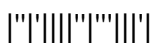
- 3 a) Describe the characteristics of industrial wastes in detailed. [7]
b) Discuss the factors governing industrial wastewater treatment plants and explain the equalization process. [8]
(OR)
- 4 a) Discuss the common methods available for treatment of wastewaters. [7]
b) Explain about industrial waste water sampling and preservation of samples for analysis. [8]

UNIT-III

- 5 a) Describe the advantages and suitability of common effluent treatment plants. [7]
b) Explain the different types of effluent disposal methods available. [8]
(OR)
- 6 a) Describe the phenomenon of lake eutrophication. [7]
b) Discuss the problems in discharging the wastewater into the sewer lines. [8]

UNIT-IV

- 7 a) Illustrate the manufacturing process of steel plants. [7]
b) Describe the characteristics, effects and treatment methods of steel plant liquid wastes with neat sketches. [8]



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(OR)

- 8 a) Illustrate the manufacturing process of fertilizers. [7]
b) Describe the characteristics, effects and treatment methods of fertilizers liquid wastes with neat sketches. [8]

UNIT-V

- 9 a) Explain about the treatment of pharmaceutical plants. [7]
b) Describe the characteristics, effects and treatment methods of distilleries liquid wastes with neat sketches. [8]

(OR)

- 10 a) Illustrate the manufacturing process of dairy industries. [7]
b) Explain about the process and treatment of Aqua industry. [8]

