

Code No: 07A70105

R07

Set No. 2

IV B.Tech I Semester Examinations, December 2011
INDUSTRIAL WASTE AND WASTE WATER MANAGEMENT
Civil Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. What are the advantages and disadvantages of Boilers and cooling water? [16]
2. Give suggestions for improving the reuses of Municipal waste water. [16]
3. What are the steps involved in industrial waste water management? [16]
4. (a) Explain the manufacturing process of pulp and paper with the aid of a flow diagram.
(b) Describe the pollution potential of pulp and paper mill wastes and the remedial measures. [8+8]
5. (a) Write a detailed note on treatment of steel Plant waste
(b) Describe the treatment of coke oven waste. [8+8]
6. Explain the Oxygen sag curve in streams when industrial waste water is disposed into streams. [16]
7. (a) What are various methods for treatment of CETP sludge?
(b) What is Land treatment? State merits and demerits of land Treatment?[8+8]
8. Explain the effects of the following industrial effluent on aquatic environment when discharged without treatment
(a) Nitrogenous fertilizer plant effluent
(b) Molasses based distillary effluent
(c) Dairy effluent. [16]

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Set No. 4

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Civil Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Bring out clearly the differences among Physical Chemical and Biological treatment of Tannery waste.
(b) Describe the effects of Tannery waste on receiving waters and sewers. [8+8]
2. Explain the treatment of Fertilizer waste water in detail with the help of a flow diagram. [16]
3. (a) What are the merits and demerits of common effluent treatment plants?
(b) Explain how do you treat a cluster of tannery plants effluent as a common effluent treatment process. [8+8]
4. (a) What are the advantages and disadvantages of disposal of Industrial waste water into streams?
(b) What are the different characteristics of Industrial waste water. [8+8]
5. What are the factors to be considered for the use of treated municipal waste water in industries? [16]
6. (a) Explain how the treatment of refinery wastes is carried out in different steps.
(b) Explain Distillation and cracking processes in detail. [8+8]
7. Explain the necessity of equalization and proportioning for Industrial waste water treatment. [16]
8. Explain there difference between Industrial waste & Municipal waste water. [16]

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Set No. 1

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INDUSTRIAL WASTE AND WASTE WATER MANAGEMENT
Civil Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Explain how do you plan and data required for design of the common effluent treatment plant for the following industries:
 - (a) A group of cotton textile dyeing units.
 - (b) A group of chrome tanning industries. [8+8]
2. Give suggestions on how to control the Industrial waste disposal into lakes. [16]
3. (a) What are the different sources of waster water in Sugar Mill. Explain in detail.
(b) Describe biological treatment of effluent from Sugar Mill. [8+8]
4. Explain the preparation of Food processing and the sources of waste water in this process. [16]
5. (a) Explain Treatment and disposal of tannery wastes.
(b) Describe Biological treatment of Tannery waster also explain low cost biological methods of treatment. [8+8]
6. Explain the quality of water to be used for industrial processes. [16]
7. (a) What are the sources of effluent from a nitrogenous fertilizer plant ? Mention the typical characteristics.
(b) Explain the impact of distillary effluent on aquatic environment if discharged without treatment. [8+8]
8. Define neutralization of industrial waste? Where is it located in treatment process? Explain its importance. [16]

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R07**Set No. 3**

IV B.Tech I Semester Examinations, December 2011
INDUSTRIAL WASTE AND WASTE WATER MANAGEMENT
Civil Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
 All Questions carry equal marks

1. Draw a flow diagram of general treatment of cotton and woolen textile mill waste. [16]
2. (a) Discuss the origin and Characteristics of Distilleries wastes in detail.
 (b) Explain the by products of that may be recovered in a distillery. [8+8]
3. Explain how following pollutants are removed from the pharmaceutical effluents?
 (a) Refractory organics
 (b) Colour bodies
 (c) Inorganic dissolved solids
 (d) Solvents. [4+4+4+4]
4. Explain the importance of activated carbon treatment in advanced treatment for reuse of industrial waste water. [16]
5. (a) Explain the following with reference to paper and pulp manufacturing process.
 i. Raw Materials
 ii. Characteristics of wastes and
 iii. Sulphate process.
 (b) Describe massive lime Treatment for colour Removal in pulp and paper mill. [8+8]
6. Write about water quality in the zone of initial dilution. [16]
7. Explain the following with reference to common effluent treatment plant
 (a) Management structure
 (b) Economics CETP
 (c) Land requirement
 (d) Data need for design of CETP. [4+4+4+4]
8. How to control industrial waste water by neutralization? What are its advantages? [16]
