Code No: 07A70105 **R07** **Set No. 2**

IV B.Tech I Semester Examinations,November 2010
INDUSTRIAL WASTE AND WASTE WATER MANAGEMENT
Civil Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain the treatment of Fertilizer waste water in detail with the help of a flow diagram. [16]
2. Explain What are the factors to be considered for the use of treated municipal waste water in industries?[16]
3. Draw a flow diagram of general treatment of cotton and woolen textile mill waste. [16]
4. Explain the Oxygen sag curve in streams when industrial waste water is disposed into streams. [16]
5. (a) Describe wool wastes originate from different operations of a woolen textile mill.
   (b) Explain the effects of Cotton Textile Woolen Textile and Synthetic Textile mills waste on receiving streams and sewers. [8+8]
6. What is the necessity of joint treatment of Industrial waste water management? Also explain its advantages. [16]
7. Explain the air pollution management strategies of the following air pollutants in steel plants.
   (a) Suspended partialate matter (SPM)
   (b) Sulphur dioxide (SO_2)
   (c) Oxides of nitrogen (NO_X). [16]
8. Why pretreatment is necessary for industrial wastewater? Discuss the various types or pretreatment methods of industrial wastes. [16]

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Code No: 07A70105 **R07** **Set No. 4**

IV B.Tech I Semester Examinations,November 2010
INDUSTRIAL WASTE AND WASTE WATER MANAGEMENT
Civil Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Discuss the treatment of Dairy wastes in detail.
   (b) Describe different units of a Dairy plant and their salient features in detail. [8+8]
2. (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]
3. Draw and explain the flow chart of treating waste water of a typical Food processing industry. [16]
4. Explain the necessity of equalization and proportioning for Industrial waste water treatment. [16]
5. (a) Discuss critically the treatment and disposal of oil refinery wastes.
   (b) Explain the basic refinery operations with the help of a flow diagram. [8+8]
6. Explain the importance of activated carbon treatment in advanced treatment for reuse of industrial waste water. [16]
7. Explain the different zones of disposal into Ocean and related problems. [16]
8. (a) Explain the processing of raw cotton to finished cloth with the help of a flow diagram.
   (b) Describe the treatment of Viscose - Rayon waste. [8+8]

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Code No: 07A70105 **R07** **Set No. 1**

IV B.Tech I Semester Examinations,November 2010
INDUSTRIAL WASTE AND WASTE WATER MANAGEMENT
Civil Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain in detail What are the steps involved in industrial waste water management? [16]
2. Give suggestions for improving the reuses of Municipal waste water. [16]
3. Give suggestions on how to control the Industrial waste disposal into lakes. [16]
4. Discuss the effects of Viscose-Rayon wastes on the receiving quality of water. [16]
5. (a) Write a detailed note on treatment of steel Plant waste
   (b) Describe the treatment of coke oven waste. [8+8]
6. (a) What are the various sources of waste water from a typical integrated dairy industry? Mention the typical characteristics of combined effluent.
   (b) Explain the impact of dairy waste water on aquatic environment if discharged without any treatment. [8+8]
7. (a) Describe theories and practices of Textile mill waste treatment.
   (b) Explain the process of recovery of Zinc from Viscose Rayon wastes in detail. [8+8]
8. Mention the tolerable limits of the following industrial effluent parameters to be discharged into inland surface waters, onland for irrigation, public sewers and marine environment
   (a) Total suspended solids.
   (b) BOD_5 at 20^0C.
   (c) Oil and Grease.
   (d) Inorganic dissolved solids. [4+4+4+4]

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Code No: 07A70105 **R07** **Set No. 3**

IV B.Tech I Semester Examinations,November 2010
INDUSTRIAL WASTE AND WASTE WATER MANAGEMENT
Civil Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Draw a neat manufacturing process flow diagram of sugar. Indicate the sources of waste water.
   (b) Give typical characteristics of waste water from each source.
   (c) Describe the impact of sugar mill effluent on aquatic environment. [8+4+4]
2. What are the general uses associated with waste water reuse? [16]
3. (a) Discuss the concept of common effluent treatment plant.
   (b) Discuss the operation and maintenance problems of common effluent treatment plant. [8+8]
4. Define Industrial waste management and explain the general flowchart of Industrial waste water management. [16]
5. (a) Explain Treatment and disposal of tannery wastes.
   (b) Describe Biological treatment of Tannery waste also explain low cost biological methods of treatment. [8+8]
6. Explain the suitability of discharge of industrial waste into natural streams. [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. Explain the importance of cooling towers in Viscose-Rayon plant treatment. [16]

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