$\mathbf{R09}$

Set No. 2

III B.Tech I Semester Examinations,December 2011 WASTE MANAGEMENT Civil Engineering

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions All Questions carry equal marks *****

- 1. Explain water reuse in petroleum refining industry. Also explain how reuse of water can be implemented if a segregated waste water collection system exists. [15]
- 2. Explain the role of dissolved oxygen in treating industrial waste water by with the help of oxygen sag curve. [15]
- 3. Discuss the suitability of common effluent treatment plants (CETP). What are the questions need to be answered to assess the feasibility of setting up of a CETP.

[15]

- 4. Discuss critically "Effluent standards" and "Stream standards" as a part of stream protection measure. [15]
- 5. Explain chemical conditioning of boiler water and feed water with the help of a neat sketch. [15]
- 6. Discuss in detail, the effects of anti biotic wastes on receiving water. Also describe the treatment of anti biotic wastes. [15]
- 7. Draw a typical flow diagram giving salient features for operations and sources of waste water in a urea manufacturing plant. [15]
- 8. Give the composition of two main streams of waste in a viscose rayon plant. Also explain the effect of these wastes on the receiving water. [15]

 $\mathbf{R09}$

Set No. 4

III B.Tech I Semester Examinations, December 2011 WASTE MANAGEMENT **Civil Engineering**

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions All Questions carry equal marks *****

- 1. Describe the different stages of process of brewing. Also explain the origin of brewery waste. [15]
- 2. Give the characteristics of sugar mill wastes. Also explain the effects of these waste on receiving water. [15]
- 3. With the help of a flow diagram, explain how the treatment of a typical common effluent is carried out in different stages. [15]
- 4. Explain what is Equalization of wastes. Also explain the beneficial effects of equalization with the help of a graph. [15]
- 5. Explain the paper manufacturing process, locating the sources of generation of wastes and indicate the lines of treatment. |15|
- 6. Discuss critically the measures to be taken for the pollution control of effluents in fertilizer industry. [15]
- 7. Explain in detail what are the problems associated with the discharge of industrial waste waters. What are the remedial measures to be taken against these problems. [15]
- 8. Explain the various problems associated with the use of municipal wastewater in different industries. What are the measures to be taken against it. $\left[15\right]$

 $\mathbf{R09}$

Set No. 1

III B.Tech I Semester Examinations,December 2011 WASTE MANAGEMENT Civil Engineering

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions All Questions carry equal marks *****

- 1. Explain the disposal of industrial wastes and it's related problems. [15]2. Discuss the general principles of water treatment for boilers. [15]3. What is meant by Equalization. Explain how the equalization of wastes is carried out. Also explain the basins used in equalization with neat sketches. [15]4. What is the concept of common effluent treatment plants (CETP). What is the need for CETP. What are the advantages of CETP. [15]5. Discuss the by-products recovered in a distillery in detail. [15]6. Explain steel melting shop and Rolling mills of a steel plants along with a wastes. |15|7. What are the advantages of reusing or recycling wastewater. Discuss the water Reuse strategies in a steel plant. [15]
- 8. Explain the processes pulp making and making final product of paper in the manufacture of paper. [15]

 $\mathbf{R09}$

Set No. 3

III B.Tech I Semester Examinations,December 2011 WASTE MANAGEMENT Civil Engineering

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions All Questions carry equal marks *****

- 1. What is oxygen sag curve. What is the significance of it. Draw and explain the salient features of it. [15]
- 2. Explain the treatment of woolen textile mill waste with the help of a flow diagram.
 [15]
- 3. What is meant by Equalization. Explain how the equalization of wastes is carried out. Also explain the basins used in equalization with neat sketches. [15]
- 4. With the help of a schematic diagram, explain Blast Furnace waste treatment process in detail. [15]
- 5. Describe the different methods of effluent of a disposal, along with their relative merits and demerits. [15]
- 6. Describe the recommended characteristics of feed water and boiler water. Also explain the choice of complete boiler water treatment process. [15]
- 7. Describe the composition of waste water of a typical dairy. Also discuss the effects of these wastes on the receiving streams. [15]
- 8. Disscuss in detail reuse of treated industrial and municipal waste water. [15]
