

B. Tech Degree VIII Semester Examination, April 2009

CE 803 A/B (D) INDUSTRIAL WASTE ENGINEERING AND MANAGEMENT (2002 Scheme)

Time : 3 Hours

Maximum Marks : 100

- I. (a) Explain the effect of industrial discharge on land. (6)
(b) What is meant by equalization and what are the advantages? (6)
(c) Differentiate between steam standards and effluent standards. (8)
- OR**
- II. (a) Explain the volume reduction techniques adopted in industries. (10)
(b) Draw the general layout of an effluent treatment plant and explain the objectives of each unit. (10)
- III. (a) Derive the Streeter Phelps's equation and discuss its applications. (10)
(b) Explain how to estimate stream assimilation capacity. (10)
- OR**
- IV. (a) What do you mean by water reclamation and water reuse. (10)
(b) Write short notes on :
(i) Significance of oxygen sag curve
(ii) Waste water disposal in ocean. (10)
- V. (a) Describe the principle of attached growth and suspended growth biological systems. (10)
(b) Explain the terms coagulation and flocculation. (10)
- OR**
- VI. Write short notes on :
(i) up flow anaerobic sludge blanket reaction
(ii) bio tower
(iii) stabilization pond
(iv) ion exchange process. (20)
- VII. Explain the manufacturing process and characteristics of waste of *any two* industries :
(i) sugar mill
(ii) fertilizer plant
(iii) textile mill. (20)
- VIII. (a) Discuss the industrial waste treatment in the present day context of ISO 14000 series. (10)
(b) Explain the procedure adopted in environmental auditing. (10)
- OR**
- IX. (a) Explain the different methods used to control particulate matter. (15)
(b) What do you mean by Ecolabelling. (5)

