

MODEL QUESTION PAPER
EIGHTH SEMESTER B.TECH DEGREE EXAMINATION
2008 Scheme

08.803 – Environmental Engineering – II (C)

Time: 3 Hrs

Maximum Marks: 100

PART - A

(Answer all questions)

1. What is recirculation ratio and recirculation factor?
2. Define sludge volume index, what is its importance in sewage treatment?
3. What is oxygen sag curve in stream pollution?
4. What is self cleansing velocity? Write down the shield's expression for self cleansing velocity?
5. What is meant by sewage sickness?
6. Distinguish between low rate and high rate trickling filter?
7. Explain the principles of house drainage
8. What are factor affecting sludge digestion (8 x 5)

PART - B

Answer any one question from each module

9. (a) How BOD is estimated? (8)
(b) For a sample of sewage 5 day BOD at 20⁰c is 200 mg/l and it is 67% of Ultimate BOD, What will be its 4 day BOD at 30⁰c? (12)
- Or
10. (a) With a neat sketch explain oxygen sag curve and significance of critical Deficit? (10)
(b) Explain the different system of sewage?

Module II

11. Design an Imhoff tank to treat the sewage from a small town with 30,000 populations. The rate of sewage may be assumed as 150 liters per head per day? (20)
- Or
12. (a) Design and sketch a septic tank for 500 persons? (10)
(b) Explain the working and design principles of a grit chamber? (10)

Module III

13. (a) Draw the neat sketch of a sludge digestion tank and explain the working and stages of sludge digestion? (12)
(b) Explain the systems of plumbing? (8)
- Or
14. (a) What are aerated lagoons? How do they work (10)
(b) Explain the principle of working of an oxidation pond? (10)

