

IV B.Tech I Semester Supplementary Examinations, April/May 2005
ENVIRONMENTAL ENGINEERING
(Chemical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Enumerate the environmental Acts passed by Parliament till date.
(b) State the powers and functions of the Pollution Control Boards.
2. From first principle derive an equation for I stage BOD at any time 't' having the ultimate BOD value L and reaction rate constants k_1 .
3. (a) Define the terms Cold front and Warm front?
(b) Explain how temperature inversions are caused?
(c) Give the importance of ventilation coefficient in measuring atmospheric dispersion?
4. (a) Explain the working, construction, and principles of electrostatic precipitator
(b) What are the advantages and disadvantages of electrostatic precipitator
5. Briefly discuss the removal of sulfur from the gases using
(a) Alkalized alumina process
(b) Manganese oxide process.
6. Briefly discuss the different alternatives available for the treatment of ammonia bearing wastewater from fertilizer plants.
7. Explain the principle of operation various types of stabilization ponds.
8. Suggest a strategy to remove Cr and Cu from a waste. Discuss various parameters and their effect on removal characteristics of above.
