

B. E. 4/4 (Civil) II – Semester (New) (Main) Examination, June 2010

Subject : **Advanced Environmental Engineering**  
(Elective – II)

Time : 3 Hours}

(Max. Marks: 75

**Note:** Answer **all** questions of Part - A and answer any **five** questions from Part-B.

**PART – A** (25 Marks)

1. Mention four characteristics of Waste water. (3)
2. Define Self purification ratio. (2)
3. Draw the flow diagram for treatment of waste waters from dairy industry. (2)
4. Write three effects of industrial effluents on human health. (3)
5. Explain the use of wind rose diagram in locating an industry. (3)
6. Classify air pollutants based on source. (2)
7. What is the role played by vegetation in controlling air pollution ? (3)
8. Differentiate between adsorption and absorption . (2)
9. Define Environmental impact Assessment. (2)
10. Explain the problems in baseline data collection. (3)

**PART – B** (5x10=50 Marks)

- 11.(a) Explain how environmental legislation is related to industrial effluents and hazardous wastes. (6)
- (b) Explain the various phenomenon responsible for self purification of rivers. Discuss the factors. (4)
- 12.(a) Explain the treatment of textile mill waste with help of flow diagram. (5)
- (b) Suggest possible alternatives for treating wastewater from sugar industry. (5)
- 13.(a) Explain briefly the effect of meteorology on Air Pollutants. (5)
- (b) List out various methods of air pollutants sampling. Describe any one method in detail. (5)
- 14.(a) Classify the suspended particulate matter control equipment. Describe the working principles of settling chambers. (6)
- (b) What is condensation and how it is useful in gaseous air pollution control ? (4)
- 15.(a) Explain the need and list the objectives of environmental impact assessment. (5)
- (b) Explain the matrix method of environmental Impact Assessment. (5)
- 16.(a) What is plume and describe the different types of plume behaviour in atmosphere? (5)
- (b) Explain pollutional effects of disposal of industrial waste waters into streams. (5)
17. Write short notes on the following : (4x2½=10)
  - (a) Air quantity standards
  - (b) Preparation of EIA of road project
  - (c) Cyclone separator
  - (d) Waste water in steel plant