Reg. No.										

MANIPAL INSTITUTE OF TECHNOLOGY

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VII SEMESTER B.TECH. (CHEMICAL ENGINEERING)

END SEMESTER EXAMINATIONS, (March 2021)

ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT PLAN [CHE 4005]

Time: 3 Hours MAX MARKS: 50

Instructions to Candidates:

- Answer **FIVE FULL** questions.
- Missing data may be suitable assumed.

1	a) With a neat flow chart of the EIA process in India by EIA notification 2006. What are the short comings of EIA 2006? b) Compare the EIA process of 1994, 2006 and 2020 notification and discuss the differences. c)What is your suggestions for future EIA notifications?	**3** **5** **2**
2	Write an essay on the Environmental Protection Act (Umbrella act) of 1986	**10**
3	a) Discuss 2 international treaties in Air pollution mitigation. b) Write an essay on environmental movement in the world	**4** **6**
4	a) Write a short note on Environmental indicators b) What are "Terms of Reference" in Environmental Impact assessment? Who gives the "Terms of reference"? Explain. c) d) What is Life Cycle Assessment (LCA)? Explain with a neat flow chart	**4** **2** **4**
5	(a) Write short notes on Environmental taxation. b)It is proposed to establish a 750 MW power plant in your city. The plant emits 143,000 lb/day of SO_2 from effective height of 250m. Estimate concentration of SO_2 at a house which is at downwind distance of 4km if the wind speed is 6.63 m/s. Assume Gaussian plume. Consider ground reflection of plume. i) At ground level. ii) At the centerline of the plume. iii) List steps you would propose to reduce the effect of the air pollution caused by the plant if the other contaminants from the plant include particulate matter and NO_x Assume stability class is C. Dispersion coefficients are in figure below	**3** **3** **3** **1**

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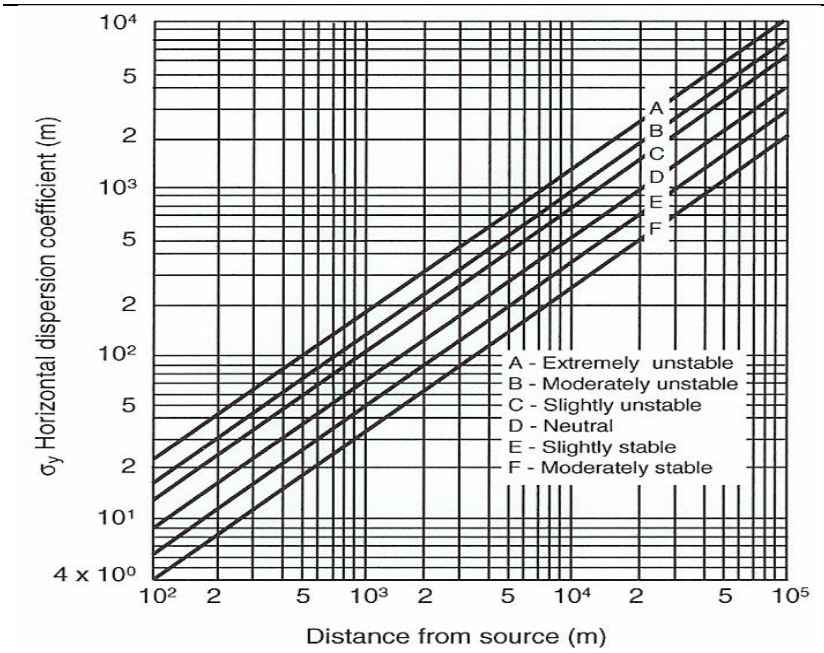

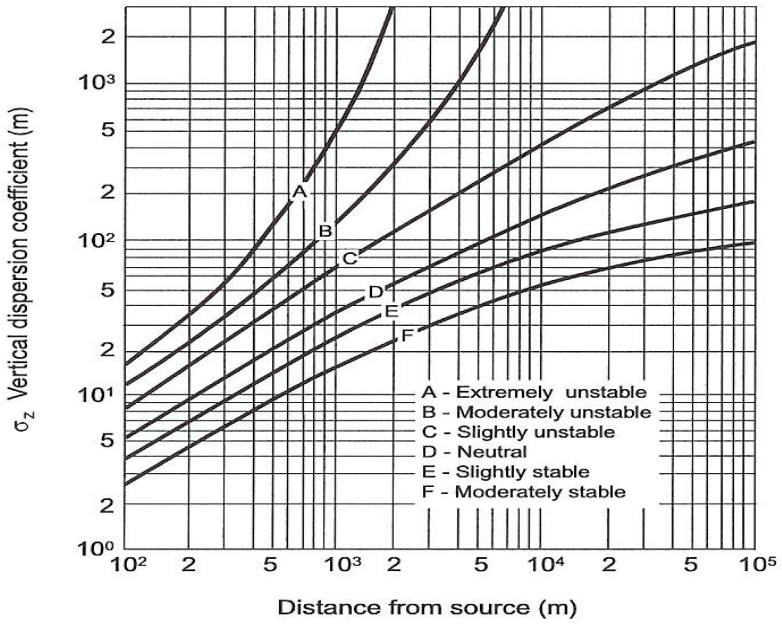

Dispersion coefficients for various stability criteria