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Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

Sixth Semester B.Tech Degree Regular and Supplementary Examination, July 2021

**Course Code: CE374**

**Course Name: AIR QUALITY MANAGEMENT**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 15 marks.*

Marks

- 1 a) Explain the different types of air pollutants, their sources and effects. (8)
- b) Describe the various components of Environment. (7)
- 2 a) Define Indoor air pollution. Write a short note on major indoor air pollutants, effects of indoor air pollution and remedial measures of indoor air pollution? (8)
- b) Define green house effect. (4)
- c) What are occupational pollutants? (3)
- 3 a) Explain the formation of photochemical smog and its effects. (7)
- b) Briefly explain any two air pollution episodes. (8)

**PART B**

*Answer any two full questions, each carries 15 marks.*

- 4 a) Explain the various meteorological factors affecting the dispersion of air Pollutants. (7)
- b) Explain the causes and effects of different types of inversions. (8)
- 5 a) Explain Pasquill's stability curves. (8)
- b) Explain the temperature and pressure relationships. (7)
- 6 a) Define sea breeze and valley breeze. (6)
- b) Define the term 'Plume' in air pollution? Enlist and explain the different types of plume behaviour with neat sketches. (9)

**PART C**

*Answer all questions, each carries 20 marks.*

- 7 a) Write short note on Air Quality monitoring and Air Quality standards. (10)
- b) Discuss the principles to be followed to ensure correct sampling of air pollutants. (10)
- 8 a) Describe the various control methods for the removal of gaseous pollutants. (10)
- b) Explain in detail about the various methods used for the sampling of particulate air pollutants. (10)
- 9 a) Explain and Electrostatic Precipitation methods. (8)
- b) Write short note on Air Quality Index. (6)
- c) Explain Filtration method of control of particulate matters. (6)

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