

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

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| 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.*

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| 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.*

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| 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) |
