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



**End Semester Examination – Nov/Dec – 2017**

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| **Code :** | **17CE3055** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ATMOSPHERIC ENVIRONMENTAL POLLUTION AND CONTROL** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Give a detailed account on source and classification of air pollutants. | CO2 | 10 |
| b. | Discuss briefly the various types of major environmental air pollution episodes occurred across the different places of the world. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Define Air Pollution Index. Summarize the parameters that are generally used for calculating Air Pollution Index. | CO2 | 5 |
| b. | List the main features of Air Act, 1981 of the government of India. State the functions of CPCB and SPCB. | CO3 | 15 |
| 3. | a. | Paraphrase in detail about the different methods available for sampling of suspend particulates. | CO3 | 10 |
| b. | Explain the plume behavior from a stack with respect to the different prevailing lapse rate. Use neat sketches. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | Summarize the different techniques available for collecting gaseous samples from a stack. Explain the techniques in detail. | CO2 | 10 |
|  | b. | Define a wind rose. Explain the importance of wind rose in air pollution studies. | CO1 | 10 |
| 5. | a. | Write explanatory notes on the various meteorological factors influencing air pollution. | CO1 | 10 |
|  | b. | Explain how can you control the emission of SOx using  i. Natural dispersion by dilution. ii. Desulphurization. | CO3 | 10 |
| (OR) | | | | |
| 6. |  | Paraphrase the working and classification of bag house filters based on the methods of cleaning and explain each in detail with a neat sketch. | CO3 | 20 |
| 7. | a. | Mention the uses of carrying out assessment of pollutant using stack sampling. Explain in detail about the planning of the study, collection of representative sample and sampling system in stack sampling. | CO2 | 15 |
|  | b. | List the various types and objectives of air pollution control equipments. | CO2 | 5 |
| (OR) | | | | |
| 8. |  | Enumerate the uses of software in air quality modeling with case studies. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Explain with neat sketch the principle, components and working of i. Electrostatic precipitators ii. Wet scrubbers iii. Cyclone Separator | CO3 | 20 |

ALL THE BEST