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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

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

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| **Code :** | **14CE2041** | **Duration :** | **3hrs** |
| **Sub. Name :** | **AIR POLLUTION MANAGEMENT** | **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. | Define air pollution and discuss the different sources of air pollutants in detail with example. | CO1 | 10 |
| b. | State the importance of maximum mixing height with respect to air pollution. | CO2 | 5 |
| c. | Discuss the role of wind in the dispersion of air pollutant. | CO2 | 5 |
| (OR) | | | | |
| 2. |  | Enumerate the damages due to air pollution on  i. Human health ii. Plants iii. Animals iv. Economical effects | CO1 | 20 |
|  |  |  |  |  |
| 3. | a. | List any five important meterological parameters that influence air pollution and explain each in detail. | CO2 | 10 |
|  | b. | Define windrose. Explain the importance of windrose in air pollution studies with a neat sketch. | CO1 | 10 |
| (OR) | | | | |
| 4. | a. | Explain with neat sketches, how different atmospheric conditions give rise to different kind of plumes. | CO2 | 10 |
|  | b. | Write short note on  i. Adiabatic lapse rate ii. Environmental lapse rate iii. Temperature inversion iv.Smog v. Photochemical smog | CO1 | 10 |
|  |  |  |  |  |
| 5. |  | List out the various procedures for controlling the emissions of SOx. Explain how can you control the emission of SOx using i.Natural dispersion by dilution. ii. Desulphurization. iii.Alternate fuels. | CO2 | 20 |
| (OR) | | | | |
| 6. | a. | Summarize the classification of bag house filters based on the method of cleaning and explain each in detail with a neat sketch. | CO2 | 10 |
|  | b. | Explain the principle and working procedure of Gravitational settling chamber and Cyclone separator with neat sketch. | CO2 | 10 |
|  |  |  |  |  |
| 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. | Discuss the factors that has to be considered for the selection of air pollution control equipment. | CO2 | 5 |
| (OR) | | | | |
| 8. | a. | Explain the effects of noise pollution on auditory and circulatory system. | CO3 | 10 |
|  | b. | Describe any four methods for control of noise pollution. | CO3 | 10 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Summarize the different methods of collecting gaseous samples from a stack. Explain the techniques in detail. | CO2 | 10 |
|  | b. | Paraphrase in detail about the different methods available for sampling of suspend particulates. | CO2 | 10 |

ALL THE BEST