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Seventh Semester B.E. Degree Examination, Dec.2019/Jan.2020

## Air Pollution & Control

10CV765

Time: 3 hrs.

Max. Marks:100

**Note: 1. Answer FIVE full questions, selecting at least TWO questions from each part.  
2. Draw neat sketches wherever required.**

### PART – A

- 1 a. Define air pollution. Explain primary and secondary air pollutants with examples. (10 Marks)  
b. Explain (i) Photo chemical smog. (ii) Coal induced smog. (10 Marks)
- 2 a. Briefly explain the effects of air pollution on:  
(i) Human health (ii) Plants (iii) Materials. (10 Marks)  
b. Discuss the following cases of air pollution episodes :  
(i) London smog (ii) Los Angeles smog. (10 Marks)
- 3 a. What is inversion? Explain in brief radiation and subsidence inversions. (10 Marks)  
b. Explain with neat sketches, how different atmospheric conditions give rise to different kinds of plumes. (10 Marks)
- 4 a. List the factors that should be taken into consideration while selecting a site for an industry from the point of minimizing air pollution. Explain them in brief. (10 Marks)  
b. Define noise pollution. Explain the sources and different methods of noise pollution control. (10 Marks)

### PART – B

- 5 a. Explain with a neat sketch, the working of a high volume air samples. (10 Marks)  
b. Explain with neat sketches the principle and working of the following :  
(i) Cyclone separator (ii) Electrostatic precipitation. (10 Marks)
- 6 a. Explain briefly the principal emission from gasoline driven and diesel driven vehicles. (10 Marks)  
b. What are the various approaches to minimize exhaust emissions? Explain. (10 Marks)
- 7 a. Define acid rain. How it is caused? Explain control method. (10 Marks)  
b. What is meant by global warming? Explain the effects of global warming on environment. (10 Marks)
- 8 a. Enumerate the Environmental (Protection) Act. (05 Marks)  
b. Indoor Air pollution. (05 Marks)  
c. List the Indian Air Quality standards. (05 Marks)  
d. List the Noise Pollution Standards. (05 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.