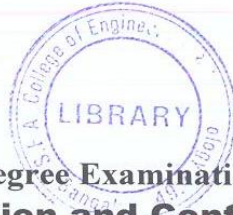


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CV 410



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**Seventh Semester B.E. Degree Examination, January 2013**  
**Air Pollution and Control**

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting at least TWO questions from each part.**

**PART – A**

- 1 a. Define air pollution? How do you classify the air pollutants? (10 Marks)  
b. What are primary and secondary air pollutants? Give examples. (10 Marks)
- 2 a. Explain the following:  
i) Smog ii) Green house effects. (10 Marks)  
b. Briefly discuss the effect of primary air pollutant on human being. (10 Marks)
- 3 a. Describe with neat sketches, how different atmospheric conditions give rise to different kinds of plumes. (10 Marks)  
b. Write an explanatory note on air inversion. (10 Marks)
- 4 a. What are the important factors to be considered for industrial plant location? (10 Marks)  
b. Explain the Lapse rate. (10 Marks)

**PART – B**

- 5 a. Explain with neat sketch the operation of electrostatic precipitators. (10 Marks)  
b. List the different types of wet scrubbers and explain any one of them with a neat sketch. (10 Marks)
- 6 a. How do you control of carbon monoxide? (10 Marks)  
b. Explain with neat sketch the particle capture mechanisms. (10 Marks)
- 7 a. Write a note on general arrangement of sampling train (sampling system). (10 Marks)  
b. Classify automobile pollution into different categories, indicating their sources. (10 Marks)
- 8 a. List out the Indian ambient air quality standards. (10 Marks)  
b. Explain the acid rain. (10 Marks)

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

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10CV765

**Seventh Semester B.E. Degree Examination, Dec.2014/Jan.2015**  
**Air Pollution and Control**

Time: 3 hrs.

Max. Marks:100

**Note: 1. Answer any FIVE full questions, selecting atleast TWO questions from each part.**  
**2. Any missing data may be suitably assumed.**

**PART - A**

- 1/ a. What are the methods of identifying air pollution? Explain briefly. (10 Marks)  
 b. How air pollutants are classified? Give examples. (05 Marks)  
 c. Briefly explain Smog. (05 Marks)
- 2 a. Explain air pollutants affecting plants. (10 Marks)  
 b. Write a note on Bhopal Gas Tragedy. (10 Marks)
- 3 a. With sketch, explain plume behaviour in different atmospheric conditions. (10 Marks)  
 b. What are the meteorological parameters that influence air pollution? (05 Marks)  
 c. Write a note on wind rose. (05 Marks)
- 4 a. Briefly explain factors to be considered for industrial plant location. (10 Marks)  
 b. Define Noise pollution. List the sources of noise pollution. (05 Marks)  
 c. What are the effects of noise pollution? List the controlling measures used to control noise pollution. (05 Marks)

**PART - B**

- 5 a. Briefly explain preliminary considerations and stages of sampling. (10 Marks)  
 b. Write a brief procedure for collection of suspended particulates. (10 Marks)
- 6 a. Briefly explain methods used to minimize the automobile exhausted emission. (10 Marks)  
 b. What are the alternative methods available to control automobile emission? (05 Marks)  
 c. Write a note on exhaust gas recycling and control of evaporative emissions. (05 Marks)
- 7 Write short notes on :  
 a. Acid rain. (07 Marks)  
 b. Green house effect. (07 Marks)  
 c. Indoor air pollution. (06 Marks)
- 8 a. Mention any five Environmental legislation. (05 Marks)  
 b. Mention any 5 drinking water standards and 5 waste water standards as per Environmental Act. (05 Marks)  
 c. List the Indian Air Quality standards as per category. (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.



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10CV765

**Seventh Semester B.E. Degree Examination, Dec.2015/Jan.2016**  
**Air Pollution and Control**

Time: 3 hrs.

Max. Marks:100

**Note:** Answer any FIVE full questions, selecting atleast TWO questions from each part.

**PART - A**

- 1 a. Define Air pollution. Explain primary and secondary air pollutants with examples. (10 Marks)  
b. Explain the effects of photochemical smog on human beings and plants. (10 Marks)
- 2 a. Briefly explain the effects of air pollution on :  
i) Human health ii) Plants iii) Animals iv) Materials. (10 Marks)  
b. Discuss the following cases of air pollution episodes :  
i) Bhopal Gas Tragedy ii) Los Angeles Smog. (10 Marks)
- 3 a. Explain with neat sketches, how different atmospheric conditions give rise to different kinds of plumes. (10 Marks)  
b. Explain the terms :  
i) Environmental Lapse Rate (ELR) ii) Adiabatic Lapse Rate (ALR)  
iii) Wind Rose (WR) iv) Inversions. (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. (10 Marks)  
b. Explain different methods of gaseous air pollutants sampling from the ambient atmosphere. (10 Marks)

**PART - B**

- 5 a. Explain with neat sketches the principle and working of the following :  
i) Cyclone separator ii) Electrostatic precipitators. (10 Marks)  
b. Enumerate the various analytical methods available for monitoring air pollution. (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. What is Acid rain? What are the causes for acid rain? What are the effects of acid rain on vegetation? (10 Marks)  
b. Describe the phenomenon of "green house effect", due to carbon dioxide. (10 Marks)
- 8 Write short notes on any four of the following :  
a. Water quality standards.  
b. Ozone layer depletion.  
c. Adsorption by solids.  
d. Stack gas sampling.  
e. Environmental policy. (20 Marks)

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