

M.Sc Sem.-2 Examination

P - 410

Environmental Science

June 2022

Time : 2-00 Hours]

[Max. Marks : 50

Instructions: All Questions in **Section I** carry equal marks
 Attempt any **THREE** Questions in **Section I**
 Questions IX in **Section II** is **COMPULSORY**

Section I

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|--------|--|---|
| Q I | A. Classify air pollutant into different categories, indicating their sources | 7 |
| | B. Explain in detail Photochemical smog | 7 |
| Q II | A. Explain behavior and fate of air pollutants | 7 |
| | B. Write down the various effects of air pollution in detail | 7 |
| Q III | A. Describe ambient air sampling | 7 |
| | B. Write down types of sampling method and give details | 7 |
| Q IV | A. Explain collection of particulate pollutants | 7 |
| | B. Explain collection of gaseous air pollutants | 7 |
| Q V | A. Compare working principle, design, efficiency, advantages & disadvantages of cyclone separator, fabric filter and electrostatic precipitator. | 7 |
| | B. Write about control of gaseous emissions in mobile sources | 7 |
| Q VI | A. Describe Source Correction Methods in detail | 7 |
| | B. Describe adsorption of nitrogen oxides by solids in detail. | 7 |
| Q VII | A. Write in brief about sick building syndrome, building related illness and chemical hypersensitivity syndrome. | 7 |
| | B. Describe Properties, Source, Exposure and Health Effects of Volatile Organic Compounds | 7 |
| Q VIII | A. Describe Properties, Source, Exposure limits and Health Effects of Ozone | 7 |
| | B. Describe Properties, Source, Exposure limits and Health Effects of Nitrogen dioxide | 7 |

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Section II

Q IX	MCQs	8
1	Acid rain is caused by _____	1
A	Nitrogen and oxides	
B	Halogen and nitrogen	
C	Sulfur and phosphorus	
D	Sulfur and oxide	
2	Which of the following diseases are caused by smog?	1
A	Rickets	
B	Bronchitis	
C	Breathing Problems	
D	All of the above	
3	Agents of Fog formation do not include _____	1
A	High relative Humidity	
B	Diurnal temperature of short ranges	
C	Winter Season	
D	Rapid Radiation	
4	which air pollutant is natural contaminates?	1
A	Smoke	
B	Gases	
C	Pollen grains	
D	fumes	
5	Which option is not an asbestos silicate mineral?	1
A	Chrysotile	
B	Crocidolite	
C	Tremolite	
D	Acrolite	
6	Permissible exposure limit of carbon monoxide according to OSHA	1
A	30	
B	50	
C	70	
D	100	
7	Which of the following is not an example of biological IAQ pollutant?	1
A	House dust mites	
B	Dander from pets	
C	Bacteria	
D	Mosquito	
8	Which solvent is not suitable to absorb nitrogen oxides from flue gas?	1
A	Ammonium bicarbonate	
B	Sodium hypochlorite	
C	Calcium hydroxide	
D	Ammonium bi-sulphite	