

AC-1573

M. Sc. (Environmental Chemistry) (SF) (Sem. IV) Examination

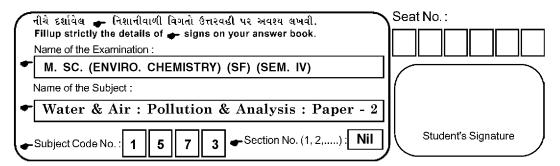
April / May - 2015

Water & Air: Pollution & Analysis: Paper - II

Time: 3 Hours [Total Marks: 70

Instructions:

(1)



- (2) Figures to the **right** indicate full marks of the questions.
 - 1 Explain any three of the following:

18

- (a) Why soil is known as the sink for carbon monoxide. Give measures for control of carbon monoxide emissions in the atmosphere.
- (b) Describe the different oxides of nitrogen as pollutants in the atmosphere.
- (c) How do microbial production of N_2O contribute to the ozone layer depletion?
- (d) Which are the major stack gas scrubbing systems for the removal of oxides of sulfur from stack gases. Explain any two processes emphasizing the advantages and disadvantages.
- 2 Answer any three of the following.

18

(a) Describe sources, uses and environmental harmful effects of Ketones.

		environmental effects.	
	(c)	Give a brief account of Minamata disaster.	
	(d)	Why perfluorocarbons and dioxins are considered as environmental pollutants. Explain giving suitable examples.	
3 Answer any three of the following.			18
_	(a)	Describe how the NO_x are determined by chemiluminscence method	20
	(b)	Discuss the merits and demerits of various wet and dry scrubbers.	
	(c)	How the hydrocarbons are determined? Explain in detail.	
	(d)	Give a brief account of direct spectroscopic method for analysis of gaseous pollutants.	
4	Answer any three of the following.		
•	(a)	Discuss different methods for control of vapours and gaseous matter.	16
	(b)	"The Global burden of carbonyl sulfide is 2.4 million tons." Explain the statement.	
	(c)	What are the harmful effects of oxides of carbon on human health and plants.	
	(d)	Why the hydrocarbon alkenes are considered as pollutants. Discuss the interactions of alkenes in atmosphere.	

(b) What are Halons? Give uses of chlorofluorocarbons and their adverse