

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– IV(NEW) EXAMINATION – SUMMER 2023****Subject Code:3140509****Date:07-07-2023****Subject Name:Pollution control & safety Management****Time:10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		<b>MARKS</b>
<b>Q.1</b>	(a) Give your view, How human being is impact on to the environment.	<b>03</b>
	(b) Briefly explain various types of environmental pollution in general	<b>04</b>
	(c) Short note on sources and causes of environmental pollution	<b>07</b>
<b>Q.2</b>	(a) Give your thoughts about effect of pollution on environment	<b>03</b>
	(b) Explain classification and properties of air pollutants	<b>04</b>
	(c) Short note: Effect of air pollution on agriculture and economy	<b>07</b>
	<b>OR</b>	
	(c) Short note: Commonly used as air pollution control devices in industry and transportation	<b>07</b>
<b>Q.3</b>	(a) Discuss government role and voluntary organizations in controlling pollution.	<b>03</b>
	(b) Define fire triangle in detail.	<b>04</b>
	(c) Explain cyclone separator with neat sketch.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Explain gravity settling chamber with neat sketch.	<b>03</b>
	(b) Discuss sources and classification of water pollutants	<b>04</b>
	(c) List out physico-chemical characterization of wastewater.	<b>07</b>
<b>Q.4</b>	(a) Define terms: payment and wages act	<b>03</b>
	(b) What are the methods of solid waste collection	<b>04</b>
	(c) Design of sedimentation tanks and biological treatment processes	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Define terms : BOD and COD with its significance	<b>03</b>
	(b) What do understand about MSDS? Explain.	<b>04</b>
	(c) Discuss about methods of solid waste disposal	<b>07</b>
<b>Q.5</b>	(a) Define energy audit and environment audit.	<b>03</b>
	(b) What are various Hazard analysis techniques? Explain.	<b>04</b>
	(c) Explain wastewater treatment processes	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) What are the basic concepts of safety audit?	<b>03</b>
	(b) Discuss about Hazard and operability (HAZOP) studies.	<b>04</b>
	(c) Short note : Various Cleaner production practices adopted by chemical industries	<b>07</b>

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