

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-IV (NEW) EXAMINATION – WINTER 2024****Subject Code:3140509****Date:19-11-2024****Subject Name: Pollution control & safety Management****Time:02:30 PM TO 05:00 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) List Various components of Ecosystem.	<b>03</b>
	(b) Write a Short notes on “Hydrological Cycle”.	<b>04</b>
	(c) Discuss the impact of chemical industries on environment.	<b>07</b>
<b>Q.2</b>	(a) Explain cumulative impact of man on environment due to Urbanisation.	<b>03</b>
	(b) Explain construction and working of venture scrubber as particulate control equipment.	<b>04</b>
	(c) List the major air pollutant and explain sources and effect of carbon monoxide in detail.	<b>07</b>
	<b>OR</b>	
	(c) Explain the removal of dissolve inorganics solids by advanced waste water treatment processes.	<b>07</b>
<b>Q.3</b>	(a) Give the classification of solid waste.	<b>03</b>
	(b) Discuss the various sources of chemical exposure.	<b>04</b>
	(c) Explain construction and working of safety release valve as safety devices.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Explain fire triangle and list the types of fire.	<b>03</b>
	(b) Explain the various methods of land-filling for disposal of solid waste.	<b>04</b>
	(c) What are the objectives of HAZOP studies? Explain its guide words with meaning.	<b>07</b>
<b>Q.4</b>	(a) What is explosive? Write its types.	<b>03</b>
	(b) Explain the objectives and benefits of EIA.	<b>04</b>
	(c) Write a short note on Fault tree analysis	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) List the various rules, regulations, Laws regarding Environmental Protection, Prevention and Control.	<b>03</b>
	(b) Describe health provision as per industries factory act.	<b>04</b>
	(c) Discuss the methodology for Environmental Impact Statement (EIS) and mention limitation of EIS.	<b>07</b>
<b>Q.5</b>	(a) List the advantages of Safety Audit.	<b>03</b>
	(b) Describe welfare provisions as per industries factory act.	<b>04</b>
	(c) Explain methodology and benefits of Environment Audit in detail.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Define: Sustainable development. Write its principles.	<b>03</b>
	(b) Explain the need of safety practices in Factory.	<b>04</b>
	(c) Write the techniques for waste prevention and minimization in Cleaner Production.	<b>07</b>

\*\*\*\*\*