

R.N.G.PATEL INSTITUTE OF TECHNOLOGY-RNGPIT
(An Autonomous Institute U/s UGC Act 1956)

B. TECH SEMESTER-I, SEMESTER END EXAMINATION – SUMMER 2025

Subject Code: 1CH102**Date: 04-06-2025****Subject Name: ENVIRONMENTAL AND POLLUTION MANAGEMENT****Time: 11:00 AM to 01:30 PM****Total Marks: 70****Instructions**

1. It is **compulsory** for students to write **Enrolment No. /Seat No.** on the question paper.
2. Write answers of **Section A** and **Section B** in **separate answer books**.
3. Attempt all questions from both **Section A** and **Section B**.
4. Each section carries **35 marks**, with a total of **70 marks** for the examination.
5. The figures to the right of each question indicate full marks, make suitable assumptions with justification.
6. BL - Bloom's Taxonomy Levels (R-Remember, U-Understanding, A –Application, N –Analyze, E – Evaluate, C -Create), CO - Course Outcomes.

SECTION A

	Marks	BL	CO
Q.1 Multiple-Choice Questions	[05]		
(a) BOD is the measure of	1	R	2
(i) Organic content in waste water (ii) Inorganic matter			
(iii) Pathogens (iv) None of these.			
(b) Major effects of noise pollution include	1	R	2
(i) Interference in communication (ii) Annoyance			
(iii) Loss of hearing (iv) All of the above			
(c) Which of the following method of solid waste disposal cause maximum problem of air pollution?	1	R	3
(i) Composting (ii) Sanitary land filling			
(iii) Incineration (iv) Pyrolysis			
(d) What does e- waste stand for?	1	R	3
(i) Environment waste (ii) Electronic waste			
(iii) Equipment waste (iv) None of the above			

(e) Which one is the hazardous pollutant released from batteries?	1	R	3
(i) Arsenic			
(ii) Barium			
(iii) Cobalt			
(iv) Cadmium			

Q.2 Attempt Any Two	[10]		
(a) Write short note on: Environmental Degradation	5	U	1
(b) Discuss the need of sustainable development.	5	U	1
(c) What are the components of environment and explain in detail all components.	5	U	1
Q.3 Attempt Any Two	[10]		
(a) Discuss the sources of water pollution.	5	U	2
(b) Explain effects of Air pollution & control devices for Air pollution.	5	U	2
(c) Explain the effects of noise pollution.	5	U	2
Q.4 Attempt Any Two	[10]		
(a) What is meant by “Hazardous Waste”? Explain the disposal technique of Solid waste.	5	U	3
(b) Define E-Waste. Discuss the sources of E-waste and its effect on environment.	5	U	3
(c) Explain with flow diagram of recycling process of E-waste.	5	U	3

SECTION B

	Marks	BL	CO
Q.5 Multiple-Choice Questions	[05]		
(a) Define the correct sequence for global warming potential (GWP) from following greenhouse gases from lowest to highest. [A] Nitrous oxide (N ₂ O) [B] Chlorofluoro carbon -11 (CFC-11) [C] Methane (CH ₄) [D] Carbin Dioxide (CO ₂) (i) [D], [C], [B], [A] (ii) [D], [C], [A], [B] (iii) [C], [D], [A], [B] (iv) [A], [C], [B], [D]	1	R	2
(b) The concept of carbon credit originated from _____. (i) Earth Summit: Rio-de-Janeiro (ii) Montreal Protocol (iii) Kyoto Protocol (iv) G-8 summit: Heiligendam	1	R	1
(c) The primary objective of green building in real estate is _____. (i) Maximizing construction cost (ii) Minimizing environmental impact (iii) Ignoring energy efficiency (iv) Prioritizing non-renewable resources.	1	R	5
(d) A smart city improves _____. (i) Quality of life (ii) Health and safety (iii) Social, economic and cultural growth (iv) All of the above	1	R	5
(e) _____ among the following is not a natural cause of climate change? (i) Animal husbandry (ii) Volcanic eruption (iii) Ocean currents (iv) Tectonic activity	1	R	3
Q.6 Attempt Any Two	[10]		
(a) Explain briefly on the ozone layer depletion	5	U	3
(b) Discuss the various ways to reduce personal and industry's carbon footprint.	5	R	2
(c) Explain the pros and cons of investing in carbon credits?	5	U	1

Q.7 Attempt Any Two	[10]		
(a) Explain the audit in the context of EIA.	5	A	3
(b) Explain the various effects of acid rain.	5	U	2
(c) Write in detail the key elements and silent features of (Environmental Impact Assessment) EIA process.	5	R	4
Q.8 Attempt Any Two	[10]		
(a) Discuss the concept of smart cities and also discuss their advantages.	5	R	5
(b) Discuss the fundamental principal of green building.	5	A	5
(c) Classify the Renewable and Non-Renewable sources of energy. Also discuss their importance.	5	U	5
