

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

B.Tech. SEMESTER-I, SEMESTER END EXAMINATION – WINTER 2025

SUBJECT CODE: 2CH102

DATE: 19-12-2025

**SUBJECT NAME: ENVIORNMENTAL 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 - Cognitive Level (As per Revised Bloom's Taxonomy) (R-Remember, U-Understanding, A –Application, N –Analyze, E – Evaluate, C -Create), CO - Course Outcomes.

SECTION A

		Marks	BL	CO
Q.1	(a) Define environmental degradation.	03	R	1
	(b) List the components of the environment and discuss each component in detail.	04	R	1
Q.2	(a) State the sources and effect of noise pollution.	03	R	2
	(b) Explain the key parameters for drinking water quality Indian standards.	04	U	2
	(c) Classify air pollutants and explain any one device used for control of air pollution.	07	U	2
OR				
Q.2	(a) List the sources and effect of soil pollution.	03	R	2
	(b) Describe the composition of air and the ambient air quality standards.	04	U	2
	(c) Explain different types of water pollutants and their effect on the quality of water and ecosystem balance.	07	U	2
Q.3	(a) Define: (i) Leachate (ii) E-waste (iii) Hazardous waste.	03	R	3
	(b) Explain the steps involved in establishing a sustainable e-waste collection and processing system.	04	U	3
	(c) Explain the 4R's principle (Reduce, Reuse, Recycle, Recover) with application.	07	A	3

OR

Q.3	(a) List the sources of e-waste.	03	R	3
	(b) Explain the main categories of solid waste and discuss the key challenges in their management within urban areas	04	U	3
	(c) Apply the color-coding system for the classification of bio-medical waste as per current regulations to demonstrate proper segregation in a hospital setting.	07	A	3

SECTION B

		Marks	BL	CO
Q.4	(a) Memorize greenhouse effect	03	R	4
	(b) State depletion of ozone layer	04	R	4
Q.5	(a) Discuss the Principle of green technology	03	U	5
	(b) Discuss green building available in which city's	04	U	5
	(c) Implement renewable and non-renewable sources of energy and their applications.	07	A	5

OR

Q.5	(a) Describe benefits of green building	03	U	5
	(b) Identify how will you design a green building	04	U	5
	(c) Illustrate basic concept of green building and smart cities	07	A	5
Q.6	(a) Explain the International steps for mitigating global change.	03	U	6
	(b) Explain the biomedical and E-Waste management rules	04	U	6
	(c) Implement the Environment (Protection) Act in your area and describe it.	07	A	6

OR

Q.6	(a) Discuss scope and importance of environmental law	03	U	6
	(b) Explain hazardous waste rules	04	U	6
	(c) Use water (Prevention and Control of Pollution) Act in your area and describe it.	07	A	6
