Enrolment No/Seat No.: _____

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: 1CH102 **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 - 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) Which of the following is a producer in an ecosystem?	**1**	**R**	**1**
	(i) Cow **(ii)** Grass **(iii)** Mushroom **(iv)** Tiger			
	(b) The correct sequence of a typical food chain is:	**1**	**U**	**1**
	(i) Producer → Decomposer → Consumer **(ii)** Consumer → Producer → Decomposer **(iii)** Producer → Consumer → Decomposer **(iv)** Decomposer → Producer → Consumer			
	(c) Which layer of the atmosphere contains the ozone layer?	**1**	**R**	**2**
	(i) Troposphere **(ii)** Mesosphere **(iii)** Stratosphere **(iv)** Thermosphere			
	(d) Noise level is measured in	**1**	**R**	**2**
	(i) Hertz **(ii)** Newton **(iii)** Decibel (dB) **(iv)** Pascal			

(e) Which of the following is NOT a type of solid waste?	**1**		**3**

(i) Plastic **(ii)** Glass

(iii) Sewage **(iv)** Paper

Q.2	**Attempt Any Two**	**[10]**		
(a)	Explain the Importance of Environmental Education.	**5**	**U**	**1**
(b)	Define the terms Environment, Ecology, Ecosystem,Pollution, Pollutant.	**5**	**R**	**1**
(c)	Explain Structure of Atmosphere.	**5**	**U**	**1**
Q.3	**Attempt Any Two**	**[10]**		
(a)	Explain environmental pollution and Give the classification of pollutants.	**5**	**U**	**2**
(b)	Explain effects of Air pollution on human & control devices for Air pollution.	**5**	**U**	**2**
(c)	Explain the effect of soil pollution.	**5**	**U**	**2**
Q.4	**Attempt Any Two**	**[10]**		
(a)	Define E-Waste. Discuss the sources of E-waste and its effect on environment.	**5**	**R**	**3**
(b)	Discuss the concept of 4R's.	**5**	**R**	**3**
(c)	Give the classification of bio-medical waste.	**5**	**R**	**3**

SECTION B

		Marks	BL	CO
Q.5	**Multiple-Choice Questions**	**[05]**		
(a)	Memorize from the following gases has the highest global warming potential (GWP)? **(i)** Carbon dioxide **(ii)** Nitrous oxide **(iii)** Methane **(iv)** Water vapor	**1**	**R**	**4**
(b)	Quote Acid rain is mainly caused by emissions of: **(i)** CO_2 and CH_4 **(ii)** CFCs and HCFCs **(iii)** SO_2 and NO_x **(iv)** PM_{10} and $PM_{2.5}$	**1**	**R**	**4**
(c)	Tell Ozone depletion is primarily caused by: **(i)** Nitrogen oxide **(ii)** Carbon monoxide **(iii)** Chlorofluorocarbons **(iv)** Methane	**1**	**R**	**4**
(d)	Identify A "carbon footprint" refers to: **(i)**Amount of physical wast produced **(ii)** Amount of water used by an individual **(iii)** Total greenhouse gases emitted directly or indirectly **(iv)** Land area required for waste disposal	**1**	**R**	**4**
(e)	Define: EIA is conducted: **(i)** After project completion **(ii)** Before project approval **(iii)** Only for government projects **(iv)** Only for international projects	**1**	**R**	**4**
Q.6	**Attempt Any Two**	**[10]**		
(a)	Explain various types of renewable energy sources with their applications.	**5**	**U**	**5**
(b)	Explain the fundamental principles of green building in detail.	**5**	**U**	**5**
(c)	Explain suppose you are designing a school as a green building. What features and technologies would you include?	**5**	**U**	**5**
Q.7	**Attempt Any Two**	**[10]**		
(a)	Explain causes and consequences of climate change.	**5**	**U**	**4**
(b)	Explain an action plan for a city to reduce its overall carbon footprint.	**5**	**U**	**4**

(c)	Explain "Ozone layer depletion and global warming are interconnected issues." Justify with examples.	**5**	**U**	**4**

Q.8 Attempt Any Two **[10]**

(a)	Relate the disadvantages of non-renewable energy sources and suggest ways to reduce dependence on them.	**5**	**U**	**5**
(b)	Compare the environmental and economic benefits of green buildings.	**5**	**U**	**5**
(c)	Summarize how can renewable energy sources be integrated into smart cities to make them more sustainable?	**5**	**U**	**5**

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