

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

B. Voc. SEMESTER-I, SEMESTER END EXAMINATION - WINTER 2024

Subject Code: 11C104

Date: 20-12-2024

Subject Name: ENVIRONMENTAL CHEMISTRY

Time: 11:00 AM to 01:00 PM

Total Marks: 50

Instructions

1. It is **compulsory** for students to write **Enrolment No. /Seat No.** on the question paper.
2. Attempt all questions in the question paper.
3. The figures to the right of each question indicate full marks. Make suitable assumptions with proper justification wherever required.
4. Simple, non-programmable scientific calculators are permitted.
5. BL - Bloom's Taxonomy Levels (R-Remember, U-Understanding, A-Application, N-Analyze, E-Evaluate, C-Create), CO - Course Outcomes.

	Marks	BL	CO
Q.1 Objective-Type Questions			
	[05]		
(a) _____ is this law states that the solubility of a gas in water is directly proportional to the partial pressure of the gas above the water.	1	U	1
(i) Henry's Law			
(ii) Boyle's Law			
(iii) Avogadro's law			
(iv) Hunt's Law			
(b) $O_2 + hv \rightarrow$ _____	1	R	2
(i) $O + O$			
(ii) $O_2 + O$			
(iii) $N + N$			
(iv) $H + O$			
(c) The solubility of gases in water decreases as the temperature _____.	1	R	3
(i) Increases.			
(ii) Decreases.			
(iii) No change			
(iv) Both (i) and (ii)			
(d) _____ occurs during chemical reactions when a nutrient or chemical in the soil solution transforms into a solid.	1	U	4
(i) Soil pH			
(ii) Minerals			
(iii) Soil organic matter			
(iv) Soil precipitation			
(e) Which of the following is not greenhouse gas?	1	A	5
(i) O_2			
(ii) CO_2			
(iii) CH_4			
(iv) CFC			

Q.2 Attempt Any Three	[15]		
(a) Enlist equipment's used to control air pollution and explain any one.	5	A	5
(b) What are the causes of greenhouse effect?	5	U	2
(c) By which factors, the solubility of gases in water is affected?	5	R	3
(d) Explain in detail: water cycle.	5	A	1
Q.3 Attempt Any Three	[15]		
(a) Explain types of lithosphere and its importance.	5	U	4
(b) Explain the polarity of H ₂ O. What is the reason for the polarity of a water molecule?	5	R	3
(c) Explain the structure of earth's atmosphere.	5	U	1
(d) Explain recycling and reuse of waste water.	5	A	5
Q.4 Attempt Any Three	[15]		
(a) What is soil chemistry? Explain the need to study soil chemistry.	5	U	4
(b) Give the difference between BOD and COD.	5	R	5
(c) Explain the detail for formation of inorganic particulate matter.	5	A	2
(d) What are chemical properties of water?	5	R	3
