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G H Raison College of Engineering and Management, Pune

(An Empowered Autonomous Institute affiliated to Savitribai Phule, Pune University, NAAC Accredited "A+" Grade)

First Year B. Tech.

CAE I / Term II / AY 2025-26 (2023 Pattern)

Environmental Chemistry (23UBSL1102)

(Time: - 01 Hour)

(Max. Marks : 20)

Instructions to the students:

- i) All questions are compulsory.
- ii) Neat diagrams must be drawn wherever necessary.
- iii) Figures to the right indicate full marks.

Question No	Question	Marks	CO	BL
1a)	Explain boiler corrosion with presentations due to O ₂ and CO ₂	4	CO1	L2
OR				
1b)	Calculate Total, Temporary and Permanent hardness of water sample if 50 ml of water sample takes 11.5 ml of 0.02 M Na ₂ EDTA in titration. 50 ml of boiled and filtered water sample requires 8.5 ml of 0.02 M Na ₂ EDTA in titration.	4	CO1	L3
1c)	Describe the processes and working of reverse osmosis. State the advantages of the process.	4	CO1	L2
OR				
1d)	Discuss the various steps involved in purification of domestic water	4	CO1	L2
2a)	Explain E-waste .Mention two separate ill effects on environment and human beings of poor management of electronic waste.	4	CO2	L2
OR				
2b)	Elaborate sources of Biomedical waste with its steps of management.	4	CO2	L2
2c)	Explain the principle of 3 R's with neat diagram and in reference to E waste management.	4	CO2	L2
OR				
2d)	Describe the various steps involved in solid waste management.	4	CO2	L2
3 a)	Explain the term Battery .Differentiate between primary and secondary battery.	4	CO3	L2
OR				
3 b)	Describe the construction and working of dry-Laclanche Cell along with diagram and reactions involved.	4	CO3	L2

BL – Bloom's Taxonomy Levels (1- Remember, 2- Understand, 3 – Apply, 4 – Analyze, 5 –Evaluate 6 - Create