

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
Supplementary Summer - 2023

Course: B. Tech

Subject: Engineering Chemistry

Marks: 60

Date: 09/08/2023

Sem: I

Subject code: BTBS102

Duration: 3 Hr.

Instructions to the Students:

1. All the questions are compulsory.
2. Use of non-programmable scientific calculators is allowed.
3. Draw a neat diagram whenever necessary.
4. Figures to right indicate full marks.

		(Level / CO)	Marks
Q.1	Solve Any Two of the following.		
	A) What are the disadvantages of hard water in Domestic and Industrial use?	2	06
	B) Explain Ion exchange process of softening of water.	1	06
	C) Explain the determination of Dissolved Oxygen by Winkler's Method.	2	06
Q.2	Solve Any Two of the following.		
	A) Describe Phase diagram of two components Ag – Pb alloy system.	2	06
	B) Explain phase diagram of one component Water system.	2	06
	C) Discuss the term component and degrees of freedom involved in Phase rule equation with examples.	1	06
Q.3	Solve Any Two of the following.		
	A) Write a note on Galvanic corrosion.	1	06
	B) Explain any one method to minimize the rate of corrosion.	2	06
	C) Describe in brief Direct chemical (Dry) corrosion.	2	06
Q.4	Solve Any Two of the following.		
	A) Explain Proximate analysis of coal.	2	06
	B) Write a note on: Refining of Petroleum.	2	06
	C) Describe Chemical properties of lubricant.	1	06
Q.5	Solve Any Two of the following.		
	A) Describe Conductometric titration with any two examples.	1	06
	B) Explain Ostwald's theory of Acid –Base indicators.	2	06
	C) Explain conductance measurement of a solution by Wheatstone's bridge method.	2	06

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