

Course: B. Tech.

Branch : All Branches

Semester : II

Subject Code & Name: Engineering Chemistry (BTBS202)

Max Marks: 60

Date: 17/01/2024

Duration: 3 Hr.

Instructions to the Students:

1. All the questions are compulsory.
2. Draw a neat diagram wherever necessary
3. Figures to right indicates full marks

		(Level /CO)	Marks
Q. 1	Solve Any Two of the following.		12
A)	Explain Hot Lime-Soda process of softening of water with its advantages and disadvantages.	2	6
B)	Discuss disadvantages of hard water in Domestic and Industrial use.	1	6
C)	Explain the determination of hardness of water by EDTA method.	2	6
Q.2	Solve Any Two of the following.		12
A)	Explain the Phase diagram of one component Water system.	2	6
B)	Discuss the term component and degrees of freedom involved in Phase rule equation with examples.	1	6
C)	Explain Phase diagram of two component Ag-Pb alloy system.	2	6
Q. 3	Solve Any Two of the following.		12
A)	Discuss Hydrogen evolution mechanism involved in electrochemical corrosion.	2	6
B)	Describe in brief Direct (Dry) chemical corrosion.	1	6
C)	Explain Cathodic protection method to minimize the rate of corrosion.	2	6
Q.4	Solve Any Two of the following.		12
A)	What is Coal? Explain various types of coal.	1	6
B)	Write a note on Refining of Petroleum.	2	6
C)	Describe in brief solid, semi-solid & liquid lubricants.	2	6
Q. 5	Solve Any Two of the following.		12
A)	Describe Ostwald's theory of Acid-Base indicator.	1	6
B)	Explain Conductometric titration with any two examples.	2	6
C)	Discuss H ₂ -O ₂ Fuel cell with its advantages.	2	6

*****END*****