DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE End Semester Examination – Summer 2022

Sem: II

Subject code: BTBS202

Course: B. Tech

Subject: Engineering Chemistry

Duration: 3.45 Hr. Marks: 60 Date: 20/08/2022 Instructions to the Students: 1. All the questions are compulsory. 2. Draw neat diagram wherever necessary 3. Figures to right indicates full marks (Level/CO) Marks Solve Any TWO of the following. Explain in details Zeolite process for softening of water with its advantages and disadvantages. **B**) Explain the determination of hardness of water by EDTA method. Discuss disadvantages of hard water in Domestic and Industrial use. Solve Any TWO of the following. Write Phase rule equation. Explain the term Phase and Component with suitable examples. Draw the Phase diagram of Water System and discuss line/curves, areas and triple point in it. Describe Phase diagram of two components Ag – Pb alloy system. Solve Any TWO of the following. Define Corrosion and explain Cathodic protection method to minimize the rate of corrosion. Discuss direct chemical corrosion (dry corrosion) occurs due to oxygen. Write a note on: Galvanic corrosion. Q.4 Solve Any TWO of the following. What are Fuels? How are they classified? Write characteristics of a good fuel. Describe determination of percentage of moisture content and volatile matter of Proximate analysis of coal. Discuss any three Physical properties of lubricants. Solve Any TWO of the following. Explain the method of conductance measurement by Wheatstone's Bridge. Explain Conductometric titration with any two examples. Describe Ostwald's theory of Acid-Base Indicator.

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