

Code No.: R22CH202BS

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CMR ENGINEERING COLLEGE : HYDERABAD
UGC AUTONOMOUS

I-B.TECH-II-Semester End Examinations (Supply) - February- 2024

ENGINEERING CHEMISTRY
(Common for CSC, CSD, CSM)

[Time: 3 Hours]

[Max. Marks: 60]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 10 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

(10 Marks)

1. a) Define Permanent hardness. [1M]
- b) What is Priming and Foaming? [1M]
- c) Define Primary cell. [1M]
- d) Define Standard Electrode Potential. [1M]
- e) Define High Calorific Value of a fuel. [1M]
- F) Define Octane number of the petroleum. [1M]
- g) What is Pilling-Bedworth rule? [1M]
- h) Define Corrosion and give an example. [1M]
- i) What is meant by Bio-Degradable polymer? [1M]
- j) Write any two differences between Thermo and Thermoset plastics. [1M]

PART-B

(50 Marks)

2. Describe the Demineralization of water by Ion exchange method with neat diagram. [10M]
- OR**
3. Explain the methods for Potable water treatment. [10M]
4. Explain the Proximate analysis of coal and its significance. [10M]
- OR**
5. Discuss the Refining of petroleum with neat diagram. [10M]
6. Explain the construction and working of Pb-acid storage battery. [10M]
- OR**
7. Derive the Nernst's equation for Galvanic cell. [10M]
8. Explain the factors influencing the rate of corrosion. [10M]
- OR**
9. Discuss the Chemical and Electrochemical theories of corrosion. [10M]
10. Describe the preparation, properties & applications of Bakelite. [10M]
- OR**
11. Discuss the classification and applications of Conducting polymers. [10M]
