Subject Code: 22CH202BS	SET-1	HT NO:			7	R					

CMR TECHNICAL CAMPUS

UGC AUTONOMOUS

B. Tech. II Sem Supply End Examinations, January-2024

Engineering Chemistry

Common to ECE, AIML, CSM&CSC

Time: 3 Hours **Max. Marks: 60**

Note

i. This Question paper contains Part- A and Part- B.
ii. All the Questions in Part A are to be answered compulsorily.
iii. All Questions from Part B are to be answered with internal choice among them.

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PART-A

10 X 01 = 10 Marks

			Marks	CO	BL
1.	a	Define Break point Chlorination.	1	CO1	1
	b	List out the specifications of Potable water.	1	CO1	1
	c	Write the Preparation of PVC.	1	CO2	1
	d	Define Biodegradable polymer with an example.	1	CO2	1
	e	What are the differences between Primary Cells and Secondary cells?	1	CO3	1
	f	Define galvanization with an example.	1	CO3	1
	g	Define cracking with an example.	1	CO4	1
	h	Define Calorific value with units.	1	CO4	1
	i	Write the structure of Polyvinyl amides.	1	CO5	1
	j	Define the flash point and fire point of a lubricant.	1	CO5	1

PART- B

5 X 10 = 50 Marks

			Marks	CO	BL
2.	a	Explain the estimation of the hardness of water by the EDTA method.	5	CO1	2
	b	Discuss desalination of water by Reverse osmosis method.	5	CO1	2
		OR			
3	a	Define sludge and scale. Explain the formation of sludge and scale in the boilers.	3	CO1	2
	b	Explain the Ion exchange process for the purification of water.	7	CO1	2
4	a	Discuss the differences between thermoplastic and thermosetting plastics.	5	CO2	2
	b	Explain the vulcanization of natural rubber with advantages.	5	CO2	2

		OR			
5	a	Explain the Preparation and engineering applications of BUNA-S.	5	CO2	2
	b	Explain the mechanism of conduction for polyacetylene.	5	CO2	2
6	a	Explain the construction, working, and applications of lithium-ion battery.	5	CO3	2
	b	Explain the construction and working principle of a methanol oxygen fuel cell.	5	CO3	2
		OR			
7	a	Explain the factors affecting the rate of corrosion.	5	CO3	2
	b	Discuss electroplating to prevent the metal from corrosion.	5	CO3	2
8	a	Explain the Proximate analysis of coal and its significance.	5	CO4	2
	b	Explain the process of Knocking.	5	CO4	2
		OR			
9	a	Discuss the preparation of synthetic petrol by Fischer Tropsch's process.	5	CO4	2
	b	Explain the preparation of Biodiesel by Trans esterification and mention its advantages.	5	CO4	2
10	a	Explain Viscosity and Viscosity index of a lubricant Discuss how Viscosity of a lubricant varies with temperature	5	CO5	2
	b	Summarize the Classification of lubricants.	5	CO5	2
		OR			
11	a	Illustrate the mechanism of thick film lubrication.	5	CO5	2
	b	Explain the setting and hardening of Portland cement.	5	CO5	2

CO : Course Outcomes

BL : Bloom's Taxonomy Levels **L 1 : Remembering** **L 2 : Understanding**

L 3 : Applying **L 4 : Analysing**

L 5 : Evaluating **L 6 : Creating**

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