Course Code: 23BS2T05

BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE

(AUTONOMOUS)

I - B. Tech II Semester Regular Examinations (BR23), June - 2025

ENGINEERING CHEMISTRY (CE)

Time: 3 hours | Max. Marks: 70

Question Paper consists of Part-A and Part-B

*Answer **ALL** the question in **Part-A andPart-B***

PART–A (10X2 = 20M)

		Marks	CO	BL
1. a)	Define hard water.	(2M)	CO1	L1
b)	What is meant by desalination	(2M)	CO1	L1
c)	What is a secondary battery?	(2M)	CO2	L2
d)	Define cathodic protection.	(2M)	CO2	L2
e)	What is polymerisation?	(2M)	CO3	L1
f)	Define HCV.	(2M)	CO3	L1
g)	Define a lubricant.	(2M)	CO4	L1
h)	What is a flash point?	(2M)	CO4	L1
i)	What is a colloid?	(2M)	CO5	L1
j)	Define Viscosity index.	(2M)	CO5	L2

PART–B (5X10 = 50M)

2.a)	Discuss about the causes, effects and prevention of Scale and Sludge?	(10M)	CO1	L2
	(OR)			
3 a)	List the specifications of drinking water	(5M)	CO1	L1
b)	Describe the desalination of brakish water by Reverse osmosis	(5M)	CO1	L2
4.a)	Interpret Nernst equation in determine the potential of a single electrode.	(5M)	CO2	L3
b)	Discuss about the factors affecting corrosion.	(5M)	CO2	L2
	(OR)			
5 a)	Discuss dry corrosion with pilling Bedworth rule	(5M)	CO2	L2
b)	Describe the working of Zn-air cell.	(5M)	CO2	L2

6 a)	Differentiate between Thermoplastic and Thermosetting plastics.	5(M)	CO3	L4
b)	Write a note on preparation, properties and uses of nylon-6,6.	5(M)	CO3	L1
	(OR)			
7 a)	Interpret on proximate analysis of coal	5(M)	CO3	L3
b)	Explain about the refining of petroleum.	5(M)	CO3	L2
8.a)	Discuss about fibre rein forced composites explaining their properties and applications.	10(M)	CO4	L2
	(OR)			
9 a)	Discuss on the classification of composites	5 (M)	CO4	L2
b)	List out the applications of refractories.	5(M)	CO4	L1
10 a)	Interpret Braggs method in synthesis of colloids.	5(M)	CO5	L3
b)	Explain the formation of micelle in colloids.	5(M)	CO5	L2
	(OR)			
11 a)	Discuss about adsorption isotherm	5(M)	CO5	L2
b)	Explain chemical methods of preparing Nano metals.	5(M)	CO5	L2

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