Question Paper Code: R15A11HS03/R14A11HS03

R15/R14

ANURAG Engineering College

(An Autonomous Institution)

I B.Tech. I Semester Supplementary Examinations, July – 2024

ENGINEERING CHEMISTRY

(COMPUTER SCIENCE AND ENGINEERING)

Time: 3 Hours **Max. Marks: 75**

Section – A (Short Answer type questions) (25 Marks)

Answer All Questions

		Course Outcome	B.T Level	Marks
1.	Define and classify Hardness of water with examples.	CO1	L1	2M
2.	Discuss Reverse Osmosis with a neat diagram.	CO1	L2	3M
3.	Define EMF?	CO2	L1	2M
4.	Define fuel cells? Write any two applications of fuel cells.	CO2	L1	3M
5.	Define metal cladding with an example.	CO3	L1	2M
6.	Explain any 3 factors affects the rate of corrosion.	CO3	L2	3M
7.	Define and classify plastics with appropriate examples.	CO4	L1	2M
8.	Discuss preparation, properties and applications of Nylon 6,6.	CO4	L2	3M
9.	Define Biodegradable polymers with an example.	CO5	L1	2M
10.	Write preparation and advantages of Bio-Diesel.	CO5	L1	3M

Section B (Essay Questions)

Answer all questions, each question carries equal marks. **(5 X 10M = 50M)**

11. A)	Explain about boiler troubles. i) Caustic Embrittlement. ii) Scale and sludge formation.	CO1	L2	10M
	OR			
B)	Explain in detail Ion Exchange process with a neat diagram.	CO1	L2	10M
12. A)	Discuss potentiometric titrations.	CO2	L2	10M
	OR			
B)	Define and classify batteries? Explain Pb – Acid storage cell.	CO2	L2	10M
13. A)	Define and classify corrosion? Explain Electrochemical corrosion in detail.	CO3	L2	10M
	OR			
B)	Explain the following in detail. i) Cathodic protection. ii) Electroplating of copper.	CO3	L2	10M
14. A)	Compounding and Mouliding of plastics.	CO4	L2	10M
	OR			
B)	i) Preparation, properties and applications of Bakelite. ii) Mechanism of conduction in poly acetylene	CO4	L2	5M 5M
15. A)	Define and classify Insulators? Discuss Thermal and Electrical insulators.	CO5	L2	10M
	OR			
B)	Preparation and applications of Nano materials.	CO5	L3	10M