

Course Name: **Industrial and Engineering Chemistry-I**, Course Code: **201CHL202**

Seat No:

Day and Date: Wednesday, 18.01.2023

Time: 2.00 pm to 4.00 pm

Max. Marks- 50

Instructions:

- Question No. 1 & 2 is compulsory.
- Figure to the right indicate full marks.
- Give suitable general Instructions
- Any other Course Specific Instructions.
- No questions should repeat from MSE/ISE

BT	CO's	Q. .		Marks
		Q.1	All Questions are compulsory	20
1,2	CO1	a	Derive an expression for First order reaction. Give one example.	6M
1,2	CO2	b	Explain in detail Phase transfer catalysis and Enzyme catalysis.	7 M
1,2	CO3	c	Discuss is Gibbs Phase Rule? Explain Sulphur system with neat diagram.	7 M
		Q.2	All Questions are compulsory (internal sub question permitted for optional questions either a or b)	10
1,2	CO4	a	Explain structure, formation and stability of Carbon free radicals.	4
1,2	CO4	b	Describe Substitution reaction and its mechanism with suitable example. OR	6
1,2	CO4	b	Explain Addition reaction with suitable example	6
		Q.3	All Questions are compulsory (internal sub question permitted for optional questions either a or b)	10
1,2	CO5	a	Enlist qualities of good dyes	3
1,2	CO5	b	Describe dyes? Explain Witt's theory of color and constitutions. OR	7
	CO5	b	Explain Diazotization and Diazo coupling	7
		Q.4	Attempt any two out of three questions	10
1,2	CO6	a	Discuss reduction of nitro compounds and its mechanism.	5
1,2	CO6	b	Explain preparation of nitro compounds.	5
1,2	CO6	C	Describe chemical properties of nitrobenzene.	5