PRN:		Course Code :	CHS303

Third Year **B.Sc.** End Semester Examination Winter 2022

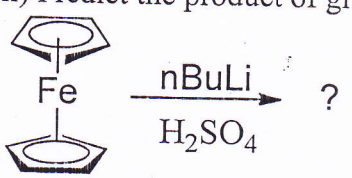
Inorganic Chemistry

Day and Date: Wed, 14-12-2022 Max Marks: **100**

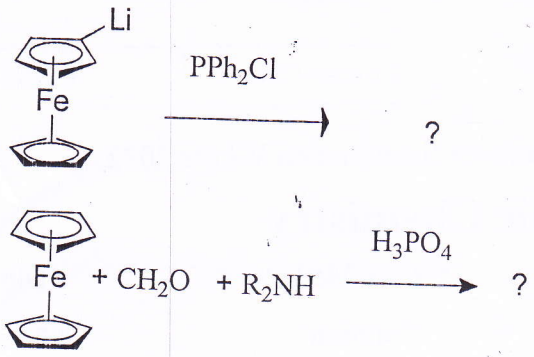
Time : 2PM-5PM Duration: **03** hrs

Instructions: All questions are compulsory.

		Marks	Bloom's Level	CLO
Q.1	**Attempt the following**			
a)	Define P block. Discuss trends in group and period in P block elements.	08	L1	CLO1
b)	Illustrate the structure, preparation and uses of B_2H_6.	08	L2	CLO1
c)	Write a note anomalous behavior of first member of Boron and Nitrogen family.	09	L3	CLO1
	or			
d)	What are Oxoacids? Discuss Oxoacids of Nitrogen and Halogen with their structure.	09	L4	CLO1
Q.2	**Attempt the following**			
a)	Write structure, preparation and uses of Inorganic Benzene.	08	L1	CLO2
b)	What are silicones? Give different types of silicones	08	L2	CLO2
c)	Give different types of inorganic polymers, Compare inorganic polymers with organic polymers.	09	L3	CLO2
	or			
d)	Find hybridization, Geometry and molecular shapes of XeO_2F_2, XeF_4, XeF_6, IF_7.	09	L4	CLO2
Q.3	**Attempt the following**			
a)	Define Hapticity. Discuss 18 electron rule of given molecules $[Mn_2CO_{10}]$, $[Cr(C_5H_5)_2Cl_2]$	08	L1	CLO3
b)	Give preparation and electrophilic substitution reactions of ferrocene.	08	L2	CLO3
c)	What are met carbonyls? Explain their bonding with structure and examples.	09	L3	CLO3
	or			
d)	i) How to prepare ferrocene? Compare its aromaticity with benzene.	09	L4	CLO3
	ii) Predict the product of given reaction.			



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Q.4 **Attempt the following**

a)	Describe the structure and function of carbonic anhydrase with mechanism.	08	L1	CLO4
b)	Discuss the oxygen intake mechanism of hemoglobin and myoglobin.	08	L2	CLO4
c)	Write the classification of elements according to their action in the biological system.	09	L3	CLO4
	or			
d)	i) Explain the role of Na^+/K^+ ions in active transport. ii)Discuss the medicinal importance of Bioinorganic Complexes.	09	L4	CLO4

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