	Semester Lecture Plan		

Name of the college: Govt. college of Arts Sci and Com. Sanquelim

Name of Faculty: Varsha K. Sail	**Subject:** Chemistry

Paper code:CHC-!09 Sec-A(Part)	**Program/Course: TY B.Sc.**	**Division: A**

Academic year: 2024 - 2025	**Semester: VI**	**Total Lectures: 15**

Course Objectives: Course Objectives: Introduction of different organometallics and spectral properties of complex

Course Learning Outcome: students gain knowledge about the different types of organometallic their properties and structure. They are introduced to the principle for color spectra of complex and reason.

Month	Lectures From: To:		No. of lectures allotted	Topic, Subtopic to be covered	Learning outcome	ICT Tools	Reference books
December 2024	9th	13th	01	organometallic-Introduction, EAN and 18 electron rule applied to carbonyls	Understand the term organometallic and different type. - Apply EAN and 18 electron rule - Understand the structure of and bonding of mononuclear and polynuclear metal coarbonyls - Reactions involved in preparation and properties - Ferrocene as an Sandwich compouns introduced - Understand its MO diagram - Know the reaction involved	Interactive board and PPT	

Month							
					in Preparation and properties` - Alky and aryls of compound introduced		
	15th	21th	01	EAN and 18 electron rule applied to Mononuclear and Polynuclear carbonyls			
Jan 25	2nd	4th	01	VBT and MOT of M-CO bonding, back bonding and stability. Mononuclear metal carbonyls: structure and bonding of $Ni(CO)_4$,			
	6th	11th	01	Mononuclear metal carbonyls: structure and bonding of $Ni(CO)_4$, $Fe(CO)_5$ and $Cr(CO)_6$			
	13th	18th	01	structures of $Mn_2(CO)_{10}$, $Co_2(CO)_8$ $Fe_2(CO)_9$ and $Fe_3(CO)_{12}$			
	20th	25th	01	Differentiate between mononuclear polynuclear, terminal and bridging CO, Preparation of Mononuclear carbonyls			
	27th	1st	01	Preparation, properties of mononuclear			
Feb 25	3rd	8th	01	Preparation, properties of polynuclear			
	10th	15th	01	Ferrocene- structure , LGO of cyclopentadienyl			
	17th	22nd	01	MO diagram			
	24th	1st	01	ISA			
March 25	3rd	8th	01	Preparartion and properties of ferrocene			

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	10th	15th	01					
	17th	22nd	01	Preparation of alkyl and aryls of Li, Al, Hg and Ti.				
	24th	29th	01	properties of alkyl and aryls of Li, Al, Hg and Ti.				
	31st	5th	01	properties of alkyl and aryls of Li, Al, Hg and Ti.				
April	7th 2025	12th	01					

Component	Max Marks
ISA 1	10
ISA 2	10
Semester End Exam	60