

Online Class Program (OCP)

Chemistry Road Map for Term-I (2020-2021) wef.01 jul 2020

Date	12(CHEMISTRY)			11(CHEMISTRY)			
	CHAPTER	SUB TOPIC		CHAPTER	SUB TOPIC		
01.Jul.20	Haloalkanes and Haloarenes	Haloalkanes: Nomenclature, nature of C-X bond, physical and chemical properties,		CHEMICAL BONDING AND MOLECULAR STRUCTURE	UNIT4:Kossel lewis approach to chemical bonding		
02.Jul.20					UNIT4:Ionic or electrovalent bond		
03.Jul.20					UNIT4:Bond parameters		
04.Jul.20					UNIT 4:VSEPR theory		
05.Jul.20		mechanism of substitution reactions, optical rotation Haloarenes: Nature of C-X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Haloarenes: Nature of C-X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Haloarenes: Nature of C-X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.		CHEMICAL BONDING AND MOLECULAR STRUCTURE	UNIT 4:Valence bond theory		
06.Jul.20					UNIT 4:Hybridisation		
07.Jul.20					UNIT 4:Hybridisation		
08.Jul.20					UNIT 4:Molecular orbital theory		
09.Jul.20					UNIT 4:Bonding in homonuclear diatomic molecule		
10.Jul.20					UNIT 4:Hydrogen bonding		
11.Jul.20							
12.Jul.20							
13.Jul.20	Haloalkanes and Haloarenes	REVISION	REVISION	CLASSIFICATION OF ELEMENTS AND PERIODICITY	3.1 Why do we need to classify elements		
14.Jul.20					3.2 Genesis of periodic classification		
15.Jul.20					3.3 Modern periodic table and its present form		
16.Jul.20	Alcohols, Phenols and Ethers	Alcohols:	Nomenclature, methods of preparation, physical and chemical properties		3.4 Nomenclature of elements with atomic no>100		
17.Jul.20					3.5 Electronic configuration of elements		
18.Jul.20					3.6 Electronic configuration and types of elements		
19.Jul.20					3.6 Electronic configuration and types of elements		
20.Jul.20		Phenols:	identification of primary, secondary and tertiary alcohols,		3.7 Periodic trends in properties of elements		
21.Jul.20					3.7 Periodic trends in properties of elements		
22.Jul.20							
23.Jul.20		Ethers:	mechanism of dehydration, uses with special reference to methanol and ethanol.		UNIT 5:Intermolecular forces		
24.Jul.20					UNIT 5:Thermal energy		
25.Jul.20					UNIT 5:Intermolecular forces vs thermal interaction		
26.Jul.20				ATTER			
27.Jul.20	s, s _{rs}	IN			UNIT 5:Gaseous law		

28.Jul.20	Alcohol: Pheno: and Ethe	REVISIC		STATES OF MATTER	UNIT 5:ideal gas equation
29.Jul.20	Amines	Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties,		CHEMICAL THERMODYNAMICS	UNIT 5:Kinetic molecular theory of gas
30.Jul.20		uses, identification of primary, secondary and tertiary amines.			UNIT 5:Deviation from ideal gas behaviour
31.Jul.20		uses, identification of primary, secondary and tertiary amines.			UNIT 5:liquefaction of gas
01.Aug.20		uses, identification of primary, secondary and tertiary amines.			UNIT 5:liquid state
02.Aug.20					
03.Aug.20	Amines	Cyanides and Isocyanides - will be mentioned at relevant places in text.		CHEMICAL THERMODYNAMICS	UNIT 6:Thermodynamic state
04.Aug.20		Cyanides and Isocyanides - will be mentioned at relevant places in text.			UNIT 6:Application
05.Aug.20		Diazonium salts: Preparation,			UNIT 6:Application
06.Aug.20		Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry			UNIT 6:Calorimetry
07.Aug.20		chemical reactions and importance in synthetic organic chemistry			UNIT 6:Calorimetry
08.Aug.20					UNIT 6:Enthalpy change
09.Aug.20					
10.Aug.20	Aldehydes, Ketones and Carboxylic Acids	Aldehydes and Ketones: Nomenclature, nature of carbonyl group,		EQUILIBRIUM	UNIT 6:Enthalpy change
11.Aug.20		methods of preparation,			UNIT 6:enthalpy of different type of reaction
12.Aug.20		physical and chemical properties,			UNIT 6:Spontaneity
13.Aug.20		mechanism of nucleophilic addition,			UNIT 6:Spontaneity
14.Aug.20					UNIT 6:Gibbs change energy and equilibrium
15.Aug.20		reactivity of alpha hydrogen in aldehydes, uses.			UNIT 6:Gibbs change energy and equilibrium
16.Aug.20					
17.Aug.20	Aldehydes, Ketones and Carboxylic Acids	reactivity of alpha hydrogen in aldehydes, uses.		EQUILIBRIUM	UNIT 7:Equilibrium in physical process
18.Aug.20		reactivity of alpha hydrogen in aldehydes, uses.			UNIT 7:Equilibrium in chemical process
19.Aug.20		Carboxylic Acids: Nomenclature,			UNIT 7:Law of chemical equilibrium
20.Aug.20		Carboxylic Acids: Nomenclature,			UNIT 7:Homogeneous equilibrium
21.Aug.20		acidic nature,			UNIT 7:Heterogeneous equilibrium
22.Aug.20		methods of preparation,			UNIT 7:Application of equilibrium constant
23.Aug.20					
24.Aug.20	Chemical Kinetics	methods of preparation,		EQUILIBRIUM	:Relationship between K,Q,C
25.Aug.20		physical and chemical properties; uses			UNIT 7:Factors affecting equilibrium
26.Aug.20		physical and chemical properties; uses			UNIT 7:Ionic equilibrium in solution
27.Aug.20		REVISI			UNIT 7:Acid ,base and salt
28.Aug.20		Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst;			UNIT 7:Ionisation of acid and base
29.Aug.20					UNIT 7:Solubility equilibria of Sparingly soluble salt
30.Aug.20					
31.Aug.20	Chemical Kinetics	order and molecularity of a reaction,		EQUILIBRIUM	:Oxidation and reduction reaction
01.Sep.20		rate law and specific rate constant,			:Oxidation and reduction reaction
02.Sep.20		integrated rate equations and half-life			:Redox reaction in terms of electron transfer
03.Sep.20		Integrated rate equations and half-life (only for zero and first order reactions),			:Redox reaction in terms of electron transfer

04.Sep.20	Ch	concept of collision theory (elementary idea, Activation energy, Arrhenius equation.	REDOX REACT	Oxidation number
05.Sep.20				:Oxidation number
06.Sep.20				
07.Sep.20	Chemical Kinetic	REVISION		:Redox reaction and electrode process
08.Sep.20	Surface Chemistry	Adsorption - physisorption and chemisorption, factors affecting adsorption of gases on solids, catalysis, homogenous and heterogenous activity and selectivity;		:Redox reaction and electrode process
09.Sep.20		enzyme catalysis colloidal state distinction between true solutions, colloids and suspension; lyophilic, lyophobic multi-molecular and macromolecular colloids;		:Position of hydrogen in periodic table
10.Sep.20		properties of colloids; Tyndall effect, Brownian movement, electrophoresis, coagulation, emulsion - types of emulsions.	HYDROGEN	:Dihydrogen
11.Sep.20				:Preparation of dihydrogen
12.Sep.20				:Properties of dihydrogen
13.Sep.20				
14.Sep.20	Surface Chemistry	properties of colloids; Tyndall effect, Brownian movement, electrophoresis, coagulation, emulsion - types of emulsions.		:Hydrides
15.Sep.20		properties of colloids; Tyndall effect, Brownian movement, electrophoresis, coagulation, emulsion - types of emulsions.		:Water
16.Sep.20		REVISION		