

Online Class Program (OCP)

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

Date	12(CHEMISTRY)		11(CHEMISTRY)	
	CHAPTE R	SUB TOPIC	CHAPTE R	SUB TOPIC
01.Jul.20	Haloalkanes and Haloarenes	Haloalkanes: Nomenclature, nature of C-X bond, physical and chemical properties, mechanism of substitution reactions, optical rotation	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				
06.Jul.20		mechanism of substitution reactions, optical rotation	CHEMICAL BONDING AND MOLECULAR STR	UNIT 4:Valence bond theory
07.Jul.20		Haloarenes: Nature of C-X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only).		UNIT 4:Hybridisation
08.Jul.20		Haloarenes: Nature of C-X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only).		UNIT 4:Hybridisation
09.Jul.20		Haloarenes: Nature of C-X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only).		UNIT 4:Molecular orbital theory
10.Jul.20		Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.		UNIT 4:Bonding in homonuclear diatomic molecule
11.Jul.20		Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.		UNIT 4:Hydrogen bonding
12.Jul.20				
13.Jul.20	Haloalkanes and Haloarenes	REVI SION	CLASSIFICATION OF ELEMENTS AND PERIODICITY	3.1 Why do we need to classify elements
14.Jul.20		REVIS ION		3.2 Genesis of periodic classification
15.Jul.20		DISCUSSION		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 identification of primary, secondary and tertiary alcohols,		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				
20.Jul.20	Alcohols, Phenols and Ethers	mechanism of dehydration, uses with special reference to methanol and ethanol.		3.6 Electronic configuration and types of elements
21.Jul.20		Phenols: Nomenclature, methods of preparation, physical and chemical properties,		3.7 Periodic trends in properties of elements
22.Jul.20		acidic nature of phenol, electrophillic substitution reactions, uses of phenols.		3.7 Periodic trends in properties of elements
23.Jul.20		Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses		UNIT 5:Intermolecular forces
24.Jul.20		Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses	UNIT 5:Thermal energy	
25.Jul.20	Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses	UNIT 5:Intermolecular forces vs thermal interaction		
26.Jul.20				
27.Jul.20			UNIT 5:Gaseous law	

28.Jul.20	Alcohol: Phenol: and Ether	REVISIC	STATES OF MATTER	UNIT 5:ideal gas equation
29.Jul.20	Amines	Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines.		UNIT 5:Kinetic molecular theory of gas
30.Jul.20				UNIT 5:Deviation from ideal gas behaviour
31.Jul.20				UNIT 5:liquification of gas
01.Aug.20				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,		UNIT 6:Calorimetry
07.Aug.20		chemical reactions and importance in synthetic organic chemistry		UNIT 6:Calorimetry
08.Aug.20		chemical reactions and importance in synthetic organic chemistry		UNIT 6:Enthalpy change
09.Aug.20				
10.Aug.20	Aldehydes, Ketones and Carboxylic Acids	Aldehydes and Ketones: Nomenclature,	CHEMICAL THERMODYNAMICS	UNIT 6:Enthalpy change
11.Aug.20		nature of carbonyl group,		UNIT 6:enthalpy of different type of reaction
12.Aug.20		methods of preparation,		UNIT 6:Spontaneity
13.Aug.20		physical and chemical properties,		UNIT 6:Spontaneity
14.Aug.20		mechanism of nucleophilic addition,		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	Aldehydes, Ketones and Carboxylic Acids	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		REVISION		UNIT 7:Acid ,base and salt
28.Aug.20	Chemical Kinetics	Rate of a reaction (Average and instantaneous),	EQUILIBRIUM	UNIT 7:Ionisation of acid and base
29.Aug.20		factors affecting rate of reaction: concentration, temperature, catalyst;		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,	REDOX REACT	Oxidation number
05.Sep.20		Activation energy, Arrhenius equation.		: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,		:Redox reaction and electrode process
09.Sep.20		catalysis, homogenous and heterogenous activity and selectivity;		:Position of hydrogen in periodic table
10.Sep.20		enzyme catalysis colloidal state distinction between true solutions, colloids and suspension;		:Dihydrogen
11.Sep.20		lyophilic, lyophobic multi-molecular and macromolecular colloids;		:Preparation of dihydrogen
12.Sep.20		properties of colloids; Tyndall effect, Brownian movement, electrophoresis, coagulation, emulsion - types of emulsions.	HYDROGEN	:Properties of dihydrogen
13.Sep.20				
14.Sep.20	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		