

LESSON PLAN

Name of Assistant Professor : Annu Kumari

Class : B.Sc. 1st Year (Non-Med)

Semester : 1

Subject : Chemistry

Section. : A & B

Weeks	Date	Topics
1 st	21 Aug- 26 Aug	Unit-1 Atomic Structure: Review of: Bohr's theory and its limitations, dual behaviour of matter and radiation, de Broglie's relation, Heisenberg Uncertainty principle, Hydrogen atom Spectra
2 nd	28 Aug - 2 Sept	What is Quantum mechanics? Time independent Schrodinger equation and meaning of various terms in it. Significance of ψ and ψ^2 , Schrödinger equation for hydrogen atom. Radial and angular parts of the hydrogenic wave functions (atomic orbitals) and their variations for 1s, 2s, 2p, 3s, 3p and 3d orbitals
3 rd	04 Sept -09 Sept	Radial and angular nodes and their significance. Radial distribution functions and the concept of the most probable distance with special reference to 1s and 2s atomic orbitals
4 th	11 Sept - 16 Sep	Significance of quantum numbers, orbital angular momentum and quantum numbers m_l and m_s . Shapes of s, p and d atomic orbitals, nodal planes. Discovery of spin, spin quantum number (s) and magnetic spin quantum number (m_s).
5 th	18sept- 23 Sept	Unit-2. Chemical Bonding: Review of Ionic Bonding: General characteristics and Energy considerations in ionic bonding, lattice energy and solvation energy and their importance in the context of stability and solubility of ionic compounds.
6 th	25 sept- 30 sept	Statement of Born-Landé equation for calculation of lattice energy, Born-Haber cycle and its applications, polarizing power and polarizability. Fajan's rules, ionic character in covalent compounds, bond moment, dipole moment

		and percentage ionic character.
7 th	3 Oct- 7 Oct	Covalent bonding: VB Approach: Shapes of some inorganic molecules and ions on the basis of VSEPR and hybridization with suitable examples of linear, trigonal planar, square planar, tetrahedral, trigonal bipyramidal and octahedral arrangements.
8 th	9 Oct- 14 Oct	MO Approach: Rules for the LCAO method, bonding and antibonding MOs and their characteristics for s-s, s-p and p-p combinations of atomic orbitals nonbonding combination of orbitals, MO treatment of homonuclear diatomic molecules of 1st and 2nd periods (including idea of s-p mixing) and heteronuclear diatomic molecules such as CO, NO and NO ⁺ . Comparison of VB and MO approaches.
9 th	16 Oct- 21 Oct	Unit-3 Fundamentals of Organic Chemistry: Physical Effects, Electronic Displacements: Inductive Effect, Electromeric Effect, Resonance and Hyperconjugation.
10 th	23 Oct- 28 Oct	Cleavage of Bonds: Homolysis and Heterolysis. Structure, shape and reactivity of organic molecules: Nucleophiles and electrophiles.
11 th	30 Oct- 4 Nov	Reactive Intermediates: Carbocations, Carbanions and free radicals.
12 th	6 Nov - 11 Nov	Strength of organic acids and bases: Comparative study with emphasis on factors affecting pK values. Aromaticity: Benzenoids and Hückel's rule.
13 th	13 Nov- 18 Nov	Unit -4 Stereochemistry: Conformations with respect to ethane, butane and cyclohexane. Interconversion of Wedge Formula, Newmann, Sawhorse and Fischer representations. Concept of chirality
14 th	20 Nov - 25 Nov	Configuration: Geometrical and Optical isomerism; Enantiomerism, Diastereomerism and Meso compounds). Threo and erythro; D and L; cis - trans nomenclature
15 th	27Nov- 02 Dec	CIP Rules: R/ S (for upto 2 chiral carbon atoms) and E / Z Nomenclature (for upto two C=C systems).

16 th	04 Dec - 09 Dec	Revision and doubt classes
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LESSON PLAN

Name of Assistant Professor : Sandeep kumar
Class : B.Sc. 2nd Year (Non-Medical)
Semester : 3
Subject : Chemistry
Section. : A&B

Weeks	Date	Topics
1 st	21 Aug- 26 Aug	Carboxylic Acids: Nomenclature of Carboxylic acids, structure and bonding, physical properties
2 nd	28 Aug - 2 Sept	Acidity of carboxylic acids, effects of substituents on acid strength.
3 rd	04 Sept -09 Sept	Preparation of carboxylic acids.
4 th	11 Sept - 16 Sept	Derivative of carboxylic acid: Structure, nomenclature and preparation of acid chlorides
5 th	18sept- 23 Sept	esters, amides and acid anhydrides. Relative stability of acyl derivatives.
6 th	25 sept- 30 sept	Physical properties, interconversion of acid derivatives by nucleophilic acyl substitution.
7 th	3 Oct- 7 Oct	Mechanisms of esterification and hydrolysis (acidic and basic).
8 th	9 Oct- 14 Oct	Doubt classes
9 th	16 Oct- 21 Oct	Submission of assignments by students Unit test for Assessment

10 th	23 Oct- 28 Oct	Unit-5 Coordination Chemistry-I: Werner's theory of coordination compounds, nomenclature of coordination compounds, Isomerism in coordination compounds
11 th	30 Oct- 4 Nov	valence bond theory of transition metal complexes. and its Limitations, crystal field theory, crystal field splitting in octahedral, tetrahedral and square planer complexes, factors affecting the crystal field parameters.
12 th	6 Nov - 11 Nov	Co-ordination Chemistry-II: Types of magnetic behaviour, methods of determining magnetic susceptibility, spin-only formula
13 th	13 Nov- 18 Nov	L-S coupling, orbital contribution to magnetic moments, application of magnetic moment data for 3d-metal complexes,
14 th	20 Nov - 25 Nov	Types of electronic transitions, selection rules for d-d transitions, spectroscopic ground states, spectrochemical series,
15 th	27Nov- 02 Dec	Orgel-energy level diagram for d1and d9 states, discussion of the electronic spectrum of [Ti(H ₂ O) ₆] ³⁺ complex ion.
16 th	04 Dec - 09 Dec	Revision and doubt classes

LESSON PLAN

Name of Assistant Professor : Sarita

Class : B.Sc. 2nd Year (Non-Medical)

Semester : 3

Subject : Chemistry

Section.

: C

Weeks	Date	Topics
1 st	21 Aug- 26 Aug	Introduction of syllabus, Unit-1 Chemical Equilibrium: Equilibrium constant and free energy, concept of chemical potential, Thermodynamic derivation of law of chemical equilibrium
2 nd	28 Aug - 2 Sept	Temperature dependence of equilibrium constant; Van' t Hoff reaction isochore, Van' t Hoff reaction isotherm. Le-Chatetier' s principle and its applications, Clapeyron equation and Clausius - Clapeyron equation & its applications
3 rd	04 Sept -09 Sept	Unit-2 Distribution Law: Nernst distribution law - its thermodynamic derivation, Modification of distribution law when solute undergoes dissociation, association and chemical combination.
4 th	11 Sept - 16 Sept	Applications of distribution law: (i) Determination of degree of hydrolysis and hydrolysis constant of aniline hydrochloride. (ii) Determination of equilibrium constant of potassium tri-iodide complex and process of extraction.
5 th	18sept- 23 Sept	Unit-3 Carboxylic Acids: Nomenclature of Carboxylic acids, structure and bonding, physical properties, acidity of carboxylic acids, effects of substituents on acid strength. Preparation of carboxylic acids.
6 th	25 sept- 30 sept	Carboxylic Acids: Nomenclature of Carboxylic acids, structure and bonding, physical properties. acidity of carboxylic acids, effects of substituents on acid strength. Preparation of carboxylic acids.
7 th	3 Oct- 7 Oct	Unit-4 Derivative of carboxylic acid: Structure, nomenclature and preparation of acid chlorides, esters, amides and acid anhydrides. Relative stability of acyl derivatives. Physical properties, interconversion of acid derivatives by nucleophilic acyl substitution. Mechanisms of esterification and hydrolysis (acidic and basic).
8 th	9 Oct- 14 Oct	Doubt classes
9 th	16 Oct- 21 Oct	Submission of assignments by students Unit test for Assessment
10 th	23 Oct- 28 Oct	Unit-5 Coordination Chemistry-I: Werner' s theory of coordination compounds, nomenclature of coordination compounds, Isomerism in

		coordination compounds
11 th	30 Oct- 4 Nov	valence bond theory of transition metal complexes. and its Limitations, crystal field theory, crystal field splitting in octahedral, tetrahedral and square planer complexes, factors affecting the crystal field parameters.
12 th	6 Nov - 11 Nov	Unit-6 coordination Chemistry-II: Types of magnetic behaviour, methods of determining magnetic susceptibility, spin-only formula. L-S coupling, orbital contribution to magnetic moments, application of magnetic moment data for 3d-metal complexes,
13 th	13 Nov- 18 Nov	Types of electronic transitions, selection rules for d-d transitions, spectroscopic ground states, spectrochemical series, Orgel-energy level diagram for d1 and d9 states, discussion of the electronic spectrum of $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$ complex ion.
14 th	20 Nov - 25 Nov	Unit-7 Kinetics-I: Rate of reaction, rate equation, factors influencing the rate of a reaction: concentration, temperature, pressure, solvent, light, catalyst. Order of a reaction, integrated rate expression for zero order, first order, second and third order reaction. Half life period of a reaction. Methods of determination of order of reaction, Consecutive Reaction, Series reaction, Parallel reactions
15 th	27Nov- 02 Dec	Unit-8 Kinetics-II: Effect of temperature on the rate of reaction - Arrhenius equation. Theories of reaction rate - Simple collision theory for unimolecular reaction, Transition state theory, Enzymatic reaction: Michaelis - Menton treatment, Acid-Base Catalysed reactions
16 th	04 Dec - 09 Dec	Revision and doubt classes

Session: 2023-24		Class - B.Sc. 5th sem		Sec F	
Teacher's Name : Anil Kumar					
Date/Week		Topic to be covered			

09/10 to 14/10/2023	Five membered heterocyclic compounds: Introduction: M.O. Picture and Aromatic characteristics of pyrrole, furan and thiophene
	Methods of synthesis of pyrrole, furan and thiophene
	Chemical reactions of pyrrole, furan and thiophene
16/10 to 21/10/2023	Electrophilic substitution reactions of pyrrole, furan and thiophene : Mechanism and Orientation, Doubt Class / Revision / U.T.
	Six membered heterocyclic compound: Pyridine - Introduction, M.O. Picture and Aromatic characteristics of pyridine, Methods of synthesis
23/10 to 28/10/2023	Chemical reactions of pyridine, Mechanism of Electrophilic Substitution reaction and Orientation
	Mechanism of Nucleophilic Substitution reaction and Orientation, Comparison of basicity of pyridine, piperidine and pyrrole, Doubt Class / Revision / U.T.
30/10 to 04/11/2023	Fused heterocyclic compounds: Introduction of condensed five- and six membered heterocycles. Synthesis: Fischer - Indole Synthesis
	Skraups synthesis and Bischler-Napieralski synthesis. Chemical reactions of quinoline and Isoquinoline
	Mechanism of Electrophilic Substitution reactions of quinoline and isoquinoline and Orientation, Doubt Class / Revision / U.T.
06/11 to 8/11/2023	Nomenclature of heterocyclic compounds: Trivial and Hantzsch-Widman system and Replacement nomenclature, Nomenclature of mono and polycyclic compounds,
	Polarity, tautomerism, aromaticity and electrophilic substitution of heterocyclic compounds, Three membered heterocyclic compounds: Synthesis and reactions of aziridines, oxiranes and thiiranes
09/11 to 16/11/2023	Diwali Vacations
17/11 to 18/11/2023	Four membered heterocyclic compounds: Synthesis and reactions of azetidines, oxetanes and thietanes, Doubt Class / Revision
20/11 to 24/11/2023	Four membered heterocyclic compounds: Synthesis and reactions of azetidines, oxetanes and thietanes, Doubt Class / Revision / U.T.

Session: 2023-24		Class - B.Sc. 5th sem	Sec F
Teacher's Name: Sh. Anil Kumar			
Date/Week	Topic to be covered		
21/08 to 26/08/2023	NMR Spectroscopy-I: Principle of nuclear magnetic resonance. The PMR spectrum, number of signals.		
28/08 to 02/09/2023	Peak areas. Equivalent and non-equivalent protons position of signals and chemical shift. Shielding and deshielding of protons.		
04/09 to 09/09/2023	proton counting, splitting of signals and coupling constants. Magnetic equivalence of protons.		

11/09 to 16/09/2023	NMR Spectroscopy-II: Simple problem on PMR spectroscopy or structure determination of common organic compounds.
	IR Spectroscopy: IR absorption spectroscopy-molecular vibrations, Hook's law.
18/09 to 23/09/2023	selection rules, intensity and position of IR bands. Measurement of IR spectrum.
	Fingerprint region, characteristic absorption of various functional groups.
	Interpretation of IR spectra of simple organic compounds.
25/09 to 30/09/2023	UV-Spectroscopy: UV-Absorption spectroscopy -absorption laws, molar absorptivity.
	Presentation and analysis of UV-spectra. Types of electronic transition.
02/10 to 07/10/2023	effect of conjugation. Concept of chromophore and auxochrome. Different type of shifts.
	UV- spectra of conjugated enes and enones.
	UV-spectra of conjugated enes and enones.
	Revision and Test

Session : 2023-24		Class - B.Sc. 5th sem	Sec A& B
Teacher's Name : Dr. Satish Kumar			
Date/Week	ORGANOMETALLICS & BIOINORGANIC		
21/08 to 26/08/2023	Organometallic Compounds-I Definition and classification of organometallic compounds on the basis of bond type. Concept of hapticity of organic ligands. Metal carbonyls: 18 electron rule, electron count of mononuclear, polynuclear and substituted metal carbonyls of 3d series.		
28/08 to 02/09/2023	General methods of preparation (direct combination, reductive carbonylation, thermal and photochemical decomposition) of mono and binuclear carbonyls of 3d series.		
04/09 to 09/09/2023	Structures of mononuclear and binuclear carbonyls of Cr, Mn and Fe using VBT		
11/09 to 16/09/2023	Structures of mononuclear and binuclear carbonyls of Co and Ni using VBT		
18/09 to 23/09/2023	π -acceptor behaviour of CO (MO diagram of CO to be discussed), synergic effect and use of IR data to explain extent of back bonding		
25/09 to 30/09/2023	Revision of topics covered and unit test		
02/10 to 07/10/2023	Organometallic Compounds-II Zeise's salt: Preparation and structure, evidences of synergic effect and comparison of synergic effect with that in carbonyls.		
09/10 to 14/10/2023	Metal Alkyls: Important structural features of methyl lithium (tetramer) and trialkyl aluminium (dimer), concept of multicentre bonding in these compounds.		

16/10 to 21/10/2023	Ferrocene: Preparation and reactions (acetylation, alkylation, metallation, Mannich Condensation), Structure and aromaticity. Comparison of aromaticity and reactivity with that of benzene.
23/10 to 28/10/2023	Catalysis by Organometallic: Compounds Study of the following industrial processes and their mechanism: 1. Alkene hydrogenation (Wilkinson's Catalyst) 2. Synthetic gasoline (Fischer Tropsch reaction) 3. Polymerisation of ethene using Ziegler-Natta catalyst
30/10 to 04/11/2023	Bioinorganic Chemistry: Metal ions present in biological systems, classification of elements according to their action in biological system. Geochemical effect on the distribution of metals.
06/11 to 8/11/2023	Sodium / K-pump, carbonic anhydrase and carboxypeptidase. Revision
09/11 to 16/11/2023	Diwali Vacations
17/11 to 18/11/2023	Excess and deficiency of some trace metals. Toxicity of metal ions (Hg, Pb, Cd and As), reasons for toxicity, Use of chelating agents in medicine.
20/11 to 24/11/2023	Cisplatin as an anti-cancer drug. Iron and its application in bio-systems, Haemoglobin, Myoglobin; Storage and transfer of iron.

Session : 2023-24 Class - B.Sc. 5th sem Sec A & B	
Teacher's Name : Dr. Anuj	
Date/Week	Topic to be covered
21/08 to 26/08/2023	Different schemes of classification of polymers, Polymer nomenclature
28/08 to 02/09/2023	Molecular forces and chemical bonding in polymers, Texture of Polymers.
04/09 to 09/09/2023	Functionality and its importance: Criteria for synthetic polymer formation, classification of polymerization processes, Relationships between functionality, extent of reaction and degree of polymerization.
11/09 to 16/09/2023	Kinetics of Polymerization: Mechanism and kinetics of step growth, radical chain growth
18/09 to 23/09/2023	ionic chain (both cationic and anionic), coordination polymerizations
25/09 to 30/09/2023	Mechanism and kinetics of copolymerization, polymerization techniques.
02/10 to 07/10/2023	Conducting Polymers: structure, properties and application of the following polymers: polyacetylene, polyaniline
09/10 to 14/10/2023	poly(p-phenylene sulphide), polypyrrole, polythiophene.
16/10 to 21/10/2023	Doubt classes, revision and Minor Test
23/10 to 28/10/2023	Brief introduction to preparation, structure, properties and application of the following polymers: polyolefins,
30/10 to 04/11/2023	polystyrene, poly(vinyl chloride)
06/11 to 8/11/2023	poly(vinyl acetate), acrylic polymers,
09/11 to 16/11/2023	Diwali Vacations

17/11 to 18/11/2023	fluoro polymers, polyamides. Phenol formaldehyde resins (Bakelite, Novalac), polyurethanes, silicone polymers.
20/11 to 24/11/2023	Revision and doubt classes

Session : 2023-24	Class - B.Sc. 3rd 5th sem	Sec - Skill Enhancement Final Year B.Sc (Med.)
Teacher's Name : Dr.Shanta Sharma		
Date/Week	Topic to be covered	
21/08 to 26/08/2023	Air Pollution: Major regions of atmosphere. Chemical and photochemical reactions in atmosphere.	
28/08 to 02/09/2023	Air pollutants: types, sources, particle size and chemical nature, Doubts/ Revision	
04/09 to 09/09/2023	Photochemical smog: its constituents and photochemistry.	
11/09 to 16/09/2023	Environmental effects of ozone, Major sources of air pollution. Pollution by SO ₂ , CO ₂ , CO, NO, H ₂ S and other foul-smelling gases.	
18/09 to 23/09/2023	Methods of estimation of CO, NO _x , SO _x and control procedures, Doubt Class.	
25/09 to 30/09/2023	Effects of air pollution on living organisms and vegetation. Greenhouse effect and Global warming, Ozone depletion by oxides of nitrogen, chlorofluorocarbons and Halogens.	
02/10 to 07/10/2023	Water Pollution: Hydrological cycle, water resources, aquatic ecosystems, Sources and nature of water pollutants.	
09/10 to 14/10/2023	Techniques for measuring water pollution, Impacts of water pollution on hydrological and ecosystems.	
16/10 to 21/10/2023	Water purification methods. Effluent treatment plants (primary, secondary and tertiary treatment).	
23/10 to 28/10/2023	Industrial effluents from the following industries and their treatment: electroplating, textile, tannery, dairy, petroleum and petrochemicals, agro, fertilizer, etc. Doubt/ Revision/U.T.	
30/10 to 04/11/2023	Industrial waste management, incineration of waste. Water treatment and purification (reverse osmosis, electro dialysis, ion exchange).	
06/11 to 8/11/2023	Water quality parameters for waste water, industrial water and domestic water.	
09/11 to 16/11/2023	Diwali Vacations	
17/11 to 18/11/2023	Sources of energy: Coal, petrol and natural gas. Nuclear Fusion Fission, Solar energy, Hydrogen, geothermal, Tidal and Hydel, etc, Doubt Class / Revision.	
20/11 to 24/11/2023	Biocatalysis: Disposal of nuclear waste, nuclear disaster and its management, Doubt Class / Revision / U.T.	

Lesson Plan

Name of Teacher : Seema

Class : B.Sc. 1st (Non- Medical) 2nd Sem

Subject : Chemistry

Section : A and B

Weeks	Dates	Topics
1	07/02/24 – 10/02/24	Zerth Law of thermodynamics, First law of thermodynamics: statement, definition of internal energy and enthalpy
2	12/02/24 – 17/02/24	Heat capacity, heat capacities at constant volume and pressure and their relationship. Joule's law – Joule – Thomson coefficient for ideal gas and real gas:
3	19/02/24 – 24/02/24	inversion temperature. Calculation of w , q , dU & dH for the expansion of ideal gases under isothermal and adiabatic conditions for reversible process, Temperature dependence of enthalpy
4	26/02/24 – 02/03/24	Kirchoffs equation. Bond energies and applications of bond energies
5	04/03/24 – 09/03/24	Unit-2 Thermodynamics-II: Second law of thermodynamics, Carnot's cycles and its efficiency, Concept of entropy – entropy as a state function,
6	11/03/24- 16/03/24	entropy as a function of V & T , entropy as a function of P & T , entropy change in physical change, entropy as a criterion of spontaneity and equilibrium. Entropy change in ideal gases and mixing of gases.

7	18/03/24- 22/03/24	Third law of thermodynamics: Nernst heat theorem, statement of concept of residual entropy, evaluation of absolute entropy from heat capacity data. Gibbs and Helmholtz functions; Gibbs function (G) and Helmholtz function (A) as thermodynamic quantities.
8	Holi Break	
9	01/04/24 – 06/04/24	A & G as criteria for thermodynamic equilibrium and spontaneity, their advantage over entropy change. Variation of G and A with P, V and T . Test
10	08/04/24- 13/04/24	Unit-3. Alcohols: Preparation: Preparation of alcohols: using Grignard reagent, Ester hydrolysis, Reduction of aldehydes, ketones, carboxylic acid and esters. Reactions: With sodium, HX (Lucas test), esterification, oxidation (with PCC, alk. KMnO ₄ , acidic dichromate, conc. HNO ₃). Oppeneauer oxidation Diols: (Upto 6 Carbons) oxidation of diols. Pinacol-Pinacolone rearrangement
11	15/04/24- 20/04/24	Phenols: (Phenol case) Preparation: Cumene hydroperoxide method, from diazonium salts. Reactions: Electrophilic substitution: Nitration, halogenation and sulphonation. ReimerTiemann Reaction, Gattermann-Koch Reaction, Houben–Hoesch Condensation, Schotten –Baumann Reaction. Ethers (aliphatic and aromatic): Cleavage of ethers with HI.
12	22/04/24- 27/04/24	Unit-4. Aldehydes and ketones (aliphatic and aromatic): (Formaldehyde, acetaldehyde, acetone and benzaldehyde) Preparation: from acid chlorides and from nitriles. Reactions – Reaction with HCN, ROH, NaHSO ₃ , NH ₂ -G derivatives. Iodoform test. Aldol

		Condensation, Cannizzaro's reaction,
13	29/04/24-30/04/24	Wittig reaction, Benzoin condensation. Clemensen reduction and Wolff Kishner reduction. MeerweinPondorff Verley reduction. Revision & doubt classes

LESSON PLAN

Name of Assistant Professor : Seema

Class : B.Sc. 1st (physics hon.)

Semester : 1

Subject : Chemistry

Weeks	Date	Topics
1 st	21 Aug- 26 Aug	Unit-1. Atomic Structure-I: Review of: Bohr's theory and its limitations, dual behaviour of matter and radiation, de Broglie's relation, Heisenberg Uncertainty principle. Hydrogen atom spectra. Need of a new approach to Atomic structure.
2 nd	28 Aug - 2 Sept	What is Quantum mechanics? Time independent Schrodinger equation and meaning of various terms in it. Significance of ψ and ψ^2 , Schrödinger equation for hydrogen atom. Radial and angular parts of the hydrogenic wave functions (atomic orbitals) and their variations for 1s, 2s, 2p, 3s, 3p and 3d orbitals (Only graphical representation).
3 rd	04 Sept - 09 Sept	Atomic Structure-II: Radial and angular nodes and their significance. Radial distribution functions and the concept of the most probable distance with special reference to 1s and 2s atomic orbitals
4 th	11 Sept - 16 Sep	Significance of quantum numbers, orbital angular momentum and quantum numbers l and m_s . Shapes of s, p and d atomic orbitals, nodal planes. Discovery of spin, spin quantum number(s) and

		magnetic spin quantum number(ms).
5 th	18sept- 23 Sept	Rules for filling electrons in various orbitals,electronic configurations of the atoms. Stability of half-filled and completely filled orbitals,concept of exchange energy.Relative energies of atomic orbitals,Anomalous electronic configurations.
6 th	25 sept- 30 sept	Chemical Bonding:Ionic Bonding:General characteristics of ionic bonding.Energy considerations in ionic bonding,lattice energy and solvation energyand their importance inthe context of stability and solubility of ionic compounds.Statement of Born-Landé equation for calculation of lattice energy,Born-Haber cycle and its applications,polarizing powerand polarizability.Fajan's rules,
7 th	3 Oct- 7 Oct	valent compounds,bond moment,dipole moment and percentage ionic character.
8 th	9 Oct- 14 Oct	Covalent bonding:VB Approach:Shapes of some inorganic molecules and ions on the basis of VSEPR and hybridization with suitable examples of linear,trigonal planar,square planar,tetrahedral,trigonal bipyramidal and octahedral arrangements.
9 th	16 Oct- 21 oct	Concept of resonance and resonating structures in various inorganic and organic compound
10 th	23 Oct- 28 Oct	Structure,shape and reactivity of organic molecules
11 th	30 Oct- 4 Nov	Nucleophiles and electrophiles.
12 th	6 Nov - 11 Nov	Test and revision
13 th	13 Nov- 18 Nov	Reactive intermediate- carbocation
14 th	20 Nov - 25 Nov	,Carbanions and free radicals.
15 th	27Nov- 02 Dec	Strength of organic acids and bases:Comparative study with emphasis onfactors affecting pK values. Aromaticity: Benzenoids and Hückel's rule
16 th	04 Dec - 09 Dec	Revision and doubt classes

