

Dayanand Mahila Mahavidyalaya, Kurukshetra

Lesson Plan

Session 2020-21 (17.04.2021 to 12.07.2021)

Name of Teacher Mrs. Asha Malik

Subject Chemistry

Week	Date	Class B.Sc.I N.M. Inorganic chemistry	Paper	Class B.Sc.I N.M Paper physical chemistry	Class B.Sc.I N.M Paper Organic chemistry
		Semester II		Semester II	
	17.04.2021				Chapter 1 - Nomenclature of alkenes, dehydration of alcohols
	19.04.2021	Chapter 1 Hydrogen bonding, types, effect on properties of substances & application			
	20.04.2021	Vander waal forces and their types			
	21.04.2021	Ram Navami			
	22.04.2021		Chapter 1. Introduction , Rate of reaction, rate equation		
	23.04.2021				dehydrohalogenation of alkenes, saytzeff rule, hoffmann elimination
	24.04.2021				Physical properties ,stability of alkenes, catalytic hydrogenation
5	26.04.2021	Metallic bond , theories of metallic bond			
	27.04.2021	semiconductors - introduction ,types, band model			

Week	Date	Class B.Sc.I N.M. Inorganic chemistry	Class B.Sc.I N.M Paper physical chemistry	Class B.Sc.I N.M Paper Organic chemistry
		Semester II	Semester II	Semester II
	28.04.2021		factors effecting rate of reaction , order of reaction, molecularity of reaction ,numerical problems related to them	
	29.04.2021		Integrated rate expression of zero order reaction and it's characteristics	
	30.04.2021			Addition of hydrogen halides, markownikoff and anti markownikoff rule, hydroboration -oxidation
1	01.05.2021			oxymercuration- reduction , ozonolysis ,hydration, hydroxylation and oxidation with KMnO_4
2	03.05.2021	application of semiconductors		
	04.05.2021	Chapter 2 group 1 elements -electronic configuration,physical properties,chemical properties		
	05.05.2021		Integrated rate expression of first order reaction and it's characteristics , numerical problems of first order reaction	
	06.05.2021		Integrated rate expression of second and third order reaction and it's characteristics	
	07.05.2021			Chapter 2 Nomenclatureof benzene derivatives, Huckel rule, aromatic ions
	08.05.2021			annulenes upto 10 carbon atoms, aromatic ,anti aromatic and non aromatic compounds
3	10.05.2021	Chemical properties, anomalous behaviour of Lithium ,diagonal relationship		

Week	Date	Class B.Sc.I N.M. Inorganic chemistry	Class B.Sc.I N.M Paper physical chemistry	Class B.Sc.I N.M Paper Organic chemistry
		Semester II	Semester II	Semester II
	11.05.2021	Group 2 elements -physical & chemical properties		
	12.05.2021		numerical problems , Arrhenius equation	
	13.05.2021		unimolecular collision theory, bimolecular collision theory	
	14.05.2021	Id-ul-Fitr/Parshuram Jayanti		
	15.05.2021			Aromatic electrophilic substitution, general pattern of mechanism , nitration
4	17.05.2021	Anomalous behaviour & diagonal relationship of Beryllium		
	18.05.2021	Salient features of Hydrides, oxides, halides, hydroxides ,behaviour of solution in liquid ammonia		
	19.05.2021		transition state theory, numerical problems	
	20.05.2021		test of chapter upto first order reaction with numericals	
	21.05.2021			Halogenation , sulphonation ,Friedel Craft reaction
	22.05.2021			Energy profile diagram, activating and deactivating substituents and orientation
5	24.05.2021	Role of s block elements		
	25.05.2021	test of chapter 1		
	26.05.2021		Numerical problems of chapter 1	

Week	Date	Class B.Sc.I N.M. Inorganic chemistry	Paper	Class B.Sc.I N.M Paper physical chemistry	Class B.Sc.I N.M Paper Organic chemistry
		Semester II		Semester II	Semester II
	27.05.2021			Chapter 2 electrolytic conduction, factors affecting electrolytic conduction	
	28.05.2021				Chapter 3 Nomenclature and classification of dienes, structure of butadiene, Assignment -1 given
	29.05.2021				1,2 & 1,4 addition Diel's Alder reaction, nomenclature and structure of alkynes
	31.05.2021	Chapter 3 Physical properties of noble gases , chemistry of noble gases			
1	01.06.2021	structure and bonding in xenon fluorides			
	02.06.2021			specific conduction, molar conduction, equivalent conduction and their relationship	
	03.06.2021			Arrhenius theory of ionization	
	04.06.2021				methods of preparation alkynes ,Physical properties of alkynes
	05.06.2021				Electrophilic reaction of alkynes with mechanism
2	07.06.2021	structure and bonding in xenon oxides			
	08.06.2021	structure and bonding in xenon oxyfluorides ,Compounds of other noble gases ,problems of chapter 3			
	09.06.2021			Ostwald dilution law ,Debye Huckel Onsager equation for strong electrolysis	
	10.06.2021			Kohlrausch law and its application	

Week	Date	Class B.Sc.I N.M. Inorganic chemistry	Paper	Class B.Sc.I N.M Paper physical chemistry	Class B.Sc.I N.M Paper Organic chemistry
		Semester II		Semester II	Semester II
	11.06.2021				Nucleophilic addition reactions with mechanism and acidity of alkynes
	12.06.2021				test of chapter 1
3	14.06.2021	Chapter 4 Group 13- physical properties, anomalous behaviour & diagonal relational relationship of boron			
	15.06.2021	Diborane , borazine, Assingment 2			
	16.06.2021			sessional test	
	17.06.2021			Applications of kohlrausch law, numerical problems	
	18.06.2021				Chapter 4 Nomenclature of alkyl halides , methods of formation,physical properties
	19.06.2021				Nucleophilic substitution reaction with mechanism
4	21.06.2021	Trihalides of boron , group 14 characteristics,carbides			
	22.06.2021	Fluorocarbons,silicates, group 15 characteristics, structure of oxides of nitrogen &phosphorus			
	23.06.2021			conductometric titration ,pH and pKa, buffer solution	
	24.06.2021	Sant Kabir Jayanti			
	25.06.2021				SN2 &SN1 reaction with energy profile diagram ,aryl halides nomenclature

Week	Date	Class B.Sc.I N.M. Inorganic chemistry	Class B.Sc.I N.M Paper physical chemistry	Class B.Sc.I N.M Paper Organic chemistry
		Semester II	Semester II	Semester II
	26.06.2021			preparation of aryl halides ,nuclear reaction of aryl halides ,electrophilic aromatic substitution ,reduction
5	28.06.2021	oxy acids of N&P, structure of white & red phosphorus,group 16 characteristics, oxy acids of sulphur		
	29.06.2021	Hydrogen peroxide- properties &uses, group 17 characteristics, inter halogen compounds		
	30.06.2021		Buffer action ,Henderson Hazel equation	
1	01.07.2021		buffer mechanism of buffer action , numerical problems	
	02.07.2021			Elimination-addition reaction , Addition-elimination reaction
	03.07.2021			reactions of aralkyl halides , relative reactivities of alkyl halides ,allyl,vinyl,aryl halides
2	05.07.2021	Hydro &oxy acids of chlorine,cationic nature of Iodine		
	06.07.2021	Revision		
	07.07.2021		Revision	
	08.07.2021		Revision	
	09.07.2021			Revision
	10.07.2021			Revision

Week	Date	Class B.Sc.I N.M. Inorganic chemistry Paper	Class B.Sc.I N.M Paper physical chemistry	Class B.Sc.I N.M Paper Organic chemistry
		Semester II	Semester II	Semester II
	12.07.2021	Revision		

Dayanand Mahila Mahavidyalaya, Kurukshetra

Lesson Plan

Session 2020-21 (17.04.2021 to 12.07.2021)

Name of Teacher-Deepika Mural

Subject -Chemistry

Week	Date	Class-B.Sc non med 6th sem	Class-BSc non med 6th sem	Class -B.Sc non med 6th sen
		Inorganic chemistry	Physical chemistry	organic chemistry
3	17.04.2021	definition of organometallic chemistry		
4	19.04.2021	nomenclature		
	20.04.2021		introduction to statistical mechanics	
	21.04.2021	Ram Navami		
	22.04.2021			organic synthesis via enolate
	23.04.2021			acidity of hydrogen
	24.04.2021	classification of organometallic compounds		
5	26.04.2021	preparation of organometallic compounds		
	27.04.2021		need for statistical thermodynamics	
	28.04.2021		thermodynamics probability	
	29.04.2021			alkylation of diethyl malonate and ethyl acetoacetate
	30.04.2021			synthesis of ethyl acetoacetate

Week	Date	Class-B.Sc non med 6th sem	Class-BSc non med 6th sem	Class -B.Sc non med 6th sen
		Inorganic chemistry	Physical chemistry	organic chemistry
1	01.05.2021	properties of organometallic compounds		
2	03.05.2021	bonding of alkyls of Li Al Hg Sn		
	04.05.2021		Maxwell Boltzmann distribution statistics	
	05.05.2021		Born Oppenheimer approximation	
	06.05.2021			claisen condensation
	07.05.2021			keto-enol tautomerization of ethyl acetoacetate
	08.05.2021	doubts+brief account of metal-ethylenic comolexes		
3	10.05.2021	mononuclear carbonyls and nature of bonding in metal carbonyls		
	11.05.2021		doubts+partition function+factorisation of partition function	
	12.05.2021		interaction of radiation with matter+ thermal and photochemical processes	
	13.05.2021			molecular orbital picture and aromatic characteristics of pyrrole,furan, thiophene,pyridine
	14.05.2021	Id-ul-Fitr/Parshuram Jayanti		
	15.05.2021			methods of synthesis and chemical reaction with particular emphasis on mechanism of electrophilic substitution
4	17.05.2021	Arrhenius,bronsted-lowry, the lux-food		
	18.05.2021	Lewis concepts of acid and bases+doubts		
	19.05.2021		laws of photochemistry+Jablonski diagram+doubts	

Week	Date	Class-B.Sc non med 6th sem	Class-B.Sc non med 6th sem	Class -B.Sc non med 6th sen
		Inorganic chemistry	Physical chemistry	organic chemistry
	20.05.2021		test+fluorescence and phosphorescence	
	21.05.2021			mechanisms of nucleophilic substitution reaction in pyridine derivatives+doubts
	22.05.2021			comparison of basicity of pyridine, piperidine,and pyrrole
5	24.05.2021	solvent system and lewis concepts of acid nd bases+ relative strength of acids nad vases		
	25.05.2021	concept of hard acid and bases		
	26.05.2021		non radiative processes,quantum yield, photosensitized reactions	
	27.05.2021		test+doubts	
	28.05.2021			introduction to condensed 5-6membered heterocycles+preparation and reaction od indole,quinoline+isoquinoline
	29.05.2021			s kraup synthesis and bischler napieralski synthesis+mechanism of electrophilic substitution reaction of quinoline and isoquinoline
	31.05.2021	symbiosis, electronegativity and hardness and softness		
1	01.06.2021	test+doubts		
	02.06.2021		ideal and non ideal solution+methods of expressing concentration of solutions+dilute and raoult's law	
	03.06.2021		colligative properties	
	04.06.2021			test+doubts+preparation of amino acid

Week	Date	Class-B.Sc non med 6th sem	Class-BSc non med 6th sem	Class -B.Sc non med 6th sen
		Inorganic chemistry	Physical chemistry	organic chemistry
	05.06.2021			classification of amino acids+ acid base behaviour, isoelectric point and electrophoresis
2	07.06.2021	essential and trace elements in biological processes+metalloporphyrinswith special reference to haemoglobin and myoglobin		
	08.06.2021	biological tole of alkali and alkaline earth metals ions+nitrogen fixation		
	09.06.2021		thermodynamics derivation of relation between amount of solute and elevation in b.pt and depression in freezing pt	
	10.06.2021		applications	
	11.06.2021			structure and nomenclature of peptides and proteins+ classification of protein
	12.06.2021			peptide structure determination, end group,selective hydrolysis of peptides
3	14.06.2021	doubts +revision		
	15.06.2021	numerical methods		
	16.06.2021		phase, component,DOF, thermodynamics derivation of gibbs phase rule	
	17.06.2021		phase equilibria of one component system	
	17.06.2021			doubt+test

Week	Date	Class-B.Sc non med 6th sem	Class-B.Sc non med 6th sem	Class -B.Sc non med 6th sen
		Inorganic chemistry	Physical chemistry	organic chemistry
	18.06.2021			classical peptide synthesis, solid phase peptide synthesis, structure of peptide and proteins
	19.06.2021			
4	21.06.2021	silicones and phosphazenes		
	22.06.2021	preparation and properties		
	23.06.2021		test+doubts	
	24.06.2021	Sant Kabir Jayanti		
	25.06.2021			addition or chain growth polymerization, free radical vinyl polymerization
	26.06.2021			ionic vinyl polymerisation
5	28.06.2021	doubts +revision		
	29.06.2021	structure and uses		
	30.06.2021			
1	01.07.2021		numerical methods	
	02.07.2021			
	03.07.2021			test+doubt+polyamide,phenol formaldehyde resins
2	05.07.2021			Ziegler natta polymerization and vinyl polymers+condensation of polymerization, polyester
	06.07.2021	test+doubts		

Week	Date	Class-B.Sc non med 6th sem	Class-BSc non med 6th sem	Class -B.Sc non med 6th sen
		Inorganic chemistry	Physical chemistry	organic chemistry
	07.07.2021		phase equilibria of two components, simple eutectic, desilverisation of leax	
	08.07.2021			natural and synthetic rubber
	09.07.2021	test+doubts		
	10.07.2021		test+doubts	
	12.07.2021			test+doubts

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Lesson Plan

Session 2020-21 (17.04.2021 to 12.07.2021)

Name of Teacher - Ms. Lorika Raj

Subject - Chemistry

Week	Date	Class B.Sc. II N.M.	Class B.Sc. II N.M.	Class B.Sc. II N.M.
		Semester IV (Inorganic)	Semester IV (Physical)	Semester IV (Organic)
3	17.04.2021	Introduction to Lanthanides		
4	19.04.2021	Electronic Structure, Oxidation State		
	20.04.2021		Second Law of Thermodynamics - Need and Definition	
	21.04.2021	Ram Navami		
	22.04.2021		Carnot Cycle, Theroem, Efficiency	
	23.04.2021			Molecular Vibrations, Hooke's Law, Selection Rules
	24.04.2021			Intensity and Position of IR Bands, Measurement of IR Spectrum
5	26.04.2021	Magnetic Property, Complex Formation & Color		
	27.04.2021	Ionic Radii, Lanthanide Contraction		
	28.04.2021		Scale of Temperature, Concept of Entropy, Entropy as State Function	
	29.04.2021		Entropy as Function of P,V,T and Entropy - Criteria of Spontaineity & Equilibrium	
	30.04.2021			Fingerprint Region, Characteristic Absorption of Different Functional Groups
1	01.05.2021			Interpretation of IR Spectra, Applications of IR Spectroscopy
2	03.05.2021	Occurernce and Separation of Lanthanides, Lanthanide Compounds		
	04.05.2021	General Charactereristics of Actinides, Transuranic Elements		
	05.05.2021		Test of Second Law of Thermodynamics	

Week	Date	Class B.Sc. II N.M.	Class B.Sc. II N.M.	Class B.Sc. II N.M.
		Semester IV (Inorganic)	Semester IV (Physical)	Semester IV (Organic)
	06.05.2021		Third Law of Thermodynamics, Nernst Heat Theorem, Residual Entropy	
	07.05.2021			Test of IR Spectroscopy
	08.05.2021			Numericals Practice
3	10.05.2021	Chemistry of Separation of Np, Pu, Am from Uranium		
	11.05.2021	Comparison of Lanthanides and Actinides		
	12.05.2021		Calculation of Absolute Entropy, Gibbs Function & Helmholtz Function	
	13.05.2021		G as Criteria for Equilibrium and Spontaneity, Advantage over Entropy change, Variation of G with P,V,T	
	14.05.2021	Id-ul-Fitr/Parshuram Jayanti		
	15.05.2021			Structure, Nomenclature, Physical Properties of Amines
4	17.05.2021			Separation of Primary, Secondary & Tertiary Amines, Basicity of Amines
	18.05.2021	Test of f-block Elements		
	19.05.2021	Acidic & Basic Radicals - Introduction		
	20.05.2021		Electrolytic & Galvanic Cell, Representation of Electrochemical cells	
	21.05.2021		Calculation of ΔG , ΔH & K, Types of Reversible Electrodes	
	22.05.2021			Preparation of Alkyl & Aryl Amines
5	24.05.2021			Electrophilic Aromatic Substitution in Aryl Amines, Reaction of Amines with Nitrous Acid
	25.05.2021	Identification of Acidic Radicals in Combination		
	26.05.2021	Interference of Acidic Radicals in Analysis of Basic Radicals, Common Ion Effect		
	27.05.2021		Electrode Reactions, Nernst Equation, Derivation of Cell EMF, Single Electrode Potential	
	28.05.2021		SHE, Reference Electrode, Standard Electrode Potential, Sign Convention	

Week	Date	Class B.Sc. II N.M.	Class B.Sc. II N.M.	Class B.Sc. II N.M.
		Semester IV (Inorganic)	Semester IV (Physical)	Semester IV (Organic)
	29.05.2021			Test of Amines
	31.05.2021			Mechanism of Diazotisation, Structure of Benzene Diazonium Chloride
1	01.06.2021	Solubility Product, Theory of Precipitation		
	02.06.2021	Co-precipitation, Post-precipitation, Purification of Precipitates		
	03.06.2021		Concentration Cells, Liquid Junction Potential	
	04.06.2021		Application of EMF Measurement, Numerical Practice	
	05.06.2021			Replacement of Diazo group by other groups, reduction of Diazonium Salts to Hydrazine
2	07.06.2021			Coupling Reaction, Its Application, Nomenclature & Structure of Carbonyl Group
	08.06.2021	Test of Inorganic Analysis		
	09.06.2021	Discussion of Test		
	10.06.2021		Test of Third Law of Thermodynamics	
	11.06.2021		Test of Electrochemistry	
	12.06.2021			Synthesis of Aldehydes & Ketones
3	14.06.2021			Physical Properties, Comparison of Aldehydes & Ketones
	15.06.2021	Mechanism Of Nucleophilic Addition to carbonyl group		
	16.06.2021	Benzoin, Aldol, Perkin, Knoevenagel Condensation		
	17.06.2021		Condensation with Ammonia & its Derivatives, Wittig Reaction, Mannich Reaction	
	17.06.2021		Oxidation of Aldehydes, Cannizzaro Reaction, MPV, Clemmensen Reduction	
	18.06.2021			Wolf Kishner, LiAlH ₄ , NaBH ₄ Reduction
	19.06.2021			Revision
4	21.06.2021	Discussion of Test		
	22.06.2021	Revision		
	23.06.2021		Numerical Practice	
	24.06.2021	Sant Kabir Jayanti		
	25.06.2021		Discussion of Test	

Week	Date	Class B.Sc. II N.M.	Class B.Sc. II N.M.	Class B.Sc. II N.M.
		Semester IV (Inorganic)	Semester IV (Physical)	Semester IV (Organic)
	26.06.2021			Test of Diazonium Salt
5	28.06.2021			Test of Aldehydes & Ketones
	29.06.2021			Discussion of Test
	30.06.2021	Revision		
1	01.07.2021	Discussion & Revision of Inorganic Chemistry Syllabus		
	02.07.2021	Revision		
	03.07.2021		Discussion & Revision of Physical Chemistry Syllabus	
2	05.07.2021			Discussion & Revision of Organic Chemistry Syllabus
	06.07.2021	Test of Inorganic Chemistry		
	07.07.2021		Test of Physical Chemistry	
	08.07.2021			Test of Organic Chemistry
	09.07.2021	Revision		
	10.07.2021		Revision	
	12.07.2021			Revision