TELANGANA STATE BOARD OF INTERMEDIATE EDUCATION: HYDERABAD

ANNUAL ACADEMIC PLAN 2024-25

CHEMISTRY II YEAR

CHEMISTRY	,		II YEAR
Month &			No. of
No. of			periods
working	Chaj	pter and Topics to be covered	allotted for
days/ No.			each topic
of periods			
June	Syllabus dictation and discussion of IPE question paper –		01
23	1. we	ightage of marks to each chapter SOLID STATE	
	1.1	General Characteristics of Solid State	
	1.2	Amorphous and Crystalline Solids	
	1.3	Classification of Crystalline Solids	
	1.4	Probing the structure of solids: X-ray	
		crystallography	
	1.5	Crystal Lattices and Unit Cells	08
	1.6	Number of Atoms in a Unit Cell	
	1.7	Close Packed Structures	
	1.8	Packing Efficiency	
	1.9	Calculations Involving Unit Cell Dimensions	
	1.10	Imperfections in Solids	
	1.11	Electrical Properties	
	1.12	Magnetic Properties	
	2.	SOLUTIONS	
	2.1	Types of Solutions	00
	2.2	Expressing Concentration of Solutions	09
	2.3	Solubility	
	2.4	Vapour Pressure of Liquid Solutions	
	2.5	Ideal and Non-ideal Solution	
	2.6	Colligative Properties and Determination of Molar Mass	
	2.7	Abnormal Molar Masses	
		EAPCET CLASSES EAPCET – TEST 1	04 01
July	3.	ELECTROCHEMISTRY AND CHEMICAL	
24		KINETICS	
	3.1	Electrochemical Cells	
	3.2	Galvanic Cells	10
	3.3	Nernst Equation	10
	3.4	Conductance of Electrolytic Solutions	
	3.5	Electrolytic Cells and Electrolysis	

	3.6 Batteries	
	3.7 Fuel Cells	
	3.8 Corrosion	
	CHEMICAL KINETICS	
l	3.9 Rate of a Chemical Reaction	
	3.10 Factors Influencing Rate of a Reaction	
	3.11 Integrated Rate Equations	08
	3.12 Pseudo First Order Reaction	
	3.13 Temperature Dependence of the Rate of a	
	Reaction	
	3.14 Collision Theory of Chemical Reaction Rates	
	PRACTICALS: A.Surface Chemistry	
	(a) Preparation of one lyophilic and onelyophobsol	
	(b) Study of the role of emulsifying agents in	
	stabilizing the emulsions of different oils	
	EAPCET CLASSES	04
	EAPCET - TEST 2	01
	UNIT TEST - I	01
August	4. SURFACE CHEMISTRY	
24	4.1 Adsorption	
	4.2 Catalysis	00
	4.3 Colloids	09
	4.4 Classification of Colloids	
	4.5 Emulsions	
	4.6 Colloids Around Us5. GENERAL PRINCIPLES OF METALLURGY	
	5.1 Occurance of Metals	
	5.2 Concentration of Ores	
	5.3 Extraction of Crude Metal from Concentrated Ore	
	5.4 Thermodynamic Principles of Metallurgy	
	5.5 Electrochemical Principles of Metallurgy	09
	5.6 Oxidation and Reduction	
	5.7 Refining of Crude Metal	
	5.8 Uses of Aluminium, Copper, Zinc and Iron	
	PRACTICALS: B. Chemical Kinetics	
	C. Solutions	04
	EAPCET CLASSES	01
	EAPCET – TEST 3	01
Contonal	UNIT TEST - 2	
September 22	6. p-BLOCK ELEMENTS GROUP-15 ELEMENTS	
	6.1 Introduction	
	6.2 Dinitrogen	04
	6.3 Ammonia	
	6.4 Oxides of nitrogen	
	6.5 Nitric acid	

	6.6	Phosphorous-allotropic forms	
	6.7	Phosphine	
	6.8	Phosphorous halides	
	6.9	Oxoacids of phosphorous	
		GROUP-16 ELEMENTS	
		Introduction	
		Dioxygen	
		Simple Oxides	05
		Ozone	
		Sulphur-Allotropic forms Sulphur dioxide	
		Oxoacids of Sulphur	
		Sulphuric Acid	
	0.17	GROUP-17 ELEMENTS	
	6.18	Introduction	
		Chlorine	
		Hydrogen Chloride	05
		Oxoacids of Halogens	05
		Interhalogen Compounds	
	GRO	UP-18 ELEMENTS	
	6.23		
		configuration Ionisation	02
		Enthalpy,Atomic radii, Electron Gain Enthalpy Physical and Chemical properties	0 -
	DD 4		
		ACTICALS: Electrochemistry E. Chromatography	
	F. I	Preparation of Inorganic Compounds	
		EAPCET CLASSES	04
		EAPCET - TEST 4	01
		UNIT TEST - 3	01
October	7.	d AND f BLOCK ELEMENTS &	
19	'	COORDINATION COMPOUNDS	
1	7 1	Position in the Periodic Table	
	$7.1 \\ 7.2$	Position in the Periodic Table Electronic Configuration	
	7.2	Electronic Configuration	
	7.2	Electronic Configuration General Properties of Transition Elements (d-	14
	7.2 7.3	Electronic Configuration General Properties of Transition Elements (d-Block) Some Important Compounds of Transition	14
	7.2 7.3 7.4	Electronic Configuration General Properties of Transition Elements (d-Block) Some Important Compounds of Transition Elements	14
	7.2 7.3 7.4 7.5 7.6	Electronic Configuration General Properties of Transition Elements (d-Block) Some Important Compounds of Transition Elements Inner Transition Elements(f-Block) Actinoids	14
	7.2 7.3 7.4 7.5 7.6 7.7	Electronic Configuration General Properties of Transition Elements (d-Block) Some Important Compounds of Transition Elements Inner Transition Elements(f-Block) Actinoids Some Applications of d and f Block Elements	14
	7.2 7.3 7.4 7.5 7.6 7.7 7.8	Electronic Configuration General Properties of Transition Elements (d-Block) Some Important Compounds of Transition Elements Inner Transition Elements(f-Block) Actinoids Some Applications of d and f Block Elements Werner's Theory of Coordination Compounds	14
	7.2 7.3 7.4 7.5 7.6 7.7	Electronic Configuration General Properties of Transition Elements (d-Block) Some Important Compounds of Transition Elements Inner Transition Elements(f-Block) Actinoids Some Applications of d and f Block Elements Werner's Theory of Coordination Compounds Definitions of Some Terms used in	14
	7.2 7.3 7.4 7.5 7.6 7.7 7.8	Electronic Configuration General Properties of Transition Elements (d-Block) Some Important Compounds of Transition Elements Inner Transition Elements(f-Block) Actinoids Some Applications of d and f Block Elements Werner's Theory of Coordination Compounds	14

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	7.11	Isomerism in Coordination Compounds	
	7.12	Bonding in Coordination Compounds	
	7.13	Bonding in Metal Carbonyls	
		Stability of Coordination Compounds	
	7.15	Importance and Applications of Coordination	
		Compounds	
		EAPCET CLASSES	04
		EAPCET – TEST 5	01
		MID TERM HOLIDAYS	
		FROM 06-10-2024 TO 13-10-2024	
		DATE OF RE-OPENING 14-10-2024	
November	8.	POLYMERS	
24	8.1	Classification of Polymers	
	8.2	Types of Polymerization Reactions	
	8.3	Molecular Mass of Polymers	0.5
	8.4	Biodegradable Polymers	05
	8.5	Polymers of Commercial Importance	
	9.	BIOMOLECULES	
	9.1	Carbohydrates	
	9.2	Proteins	
	9.3	Enzymes	
	9.4	Vitamins	0.5
	9.5.	Nucleic acids	05
	9.6	Hormones	
	10.	CHEMISTRY IN EVERYDAY LIFE	
	10.1	Drugs and their Classification	
	10.2	Drug-Target Interaction	
	10.3	Therapeutic Action of Different Classes of	
		Drugs	05
	10.4	Chemicals in Food	05
	10.5	Cleansing Agents	
		CTICALS: G. Preparation of Organic	
	Comp	pounds	
		sts for the functional groups present in	
		nic compounds	
		aracteristic tests of carbohydrates, fats and oteins	
		EAPCET CLASSES	03
		HALF YEARLY EXAMINATIONS	
		FROM 18-11-2024 TO 23-11-2024	06

December	11.	HALO ALKANES AND HALOARENES	
23	11.1	Classification	
	11.2	Nature of C-X bond	07
	11.3	Methods of Preparation	07
	11.4	Physical Properties	
	11.5	Chemical Reactions	
	11.6	Polyhalogen Compounds	
	12.	ORGANIC COMPOUNDS CONTAINING C, H AND O (Alcohols, Phenols, Ethers, Aldehydes	
		Alcohols, Phenols, Ethers	
	12.1	Classification -Alcohols, Phenols and Ethers	
	12.2	Nomenclature- Alcohols, Phenols and Ethers	
	12.3	Structures of Hydroxy and Ether Functional Groups	
	12.4	Alcohols and Phenols	
		Physical Propertics	10
		Chemical Reactions	
		Some Commercially Important Alcohols	
	12.8	Ethers	
	Aldeh	ydes and Ketones	
	12.9	Nomenclature and Structure of Carbonyl	
		Group	
	12.10	Preparation of Aldehydes and ketones.	
	12.11	Physical Properties	
	12.12	Chemical Reactions	
	12.13	Uses of Aldehydes and Ketones	
	PRAC	CTICALS: J. Determination of	
	conce	entration/molarity of KMnO ₄ solution by	
	titrat	ing it against a standard solution of:	
	(i) Ox	calic acid,	
	(ii) Fe	errous ammonium sulphate	
		EAPCET CLASSES EAPCET – TEST 6	04 01
		UNIT TEST-IV	01

January	Carboxylic Acids	
22	12.14 Nomenclature and Structure of Carboxyl	
	Group	
	12.15 Methods of Preparation of Carboxylic Acids	
	12.16 Physical Properties	02
	12.17 Chemical Reactions	
	12.18 Uses of Carboxylic Acids	
	13. ORGANIC COMPOUNDS CONTAINING NITROGEN	
	Amines	
	13.1 Structure of Amines	
	13.2 Classification	
	13.3 Nomenclature	
	13.4 Preparation of Amines	05
	13.5 Physical Properties	
	13.6 Chemical Reactions	
	Diazonium salts	
	13.7 Methods of Preparation of Diazonium Salts	
	13.8 Physical Properties	
	13.9 Chemical Reactions	
	13.10 Importance of Diazonium Salts in Synthesis of Aromatic Compounds	
	Cyanides and Isocyanides	
	13.11 Structure of cyanides and isocyanides	
	13.12 Preparation	
	PREPARATION OFR PRE-FINAL EXAMINATIONS	05
	PRACTICALS : K. Qualitative analysis	
	Determination of one cation and one anion in a	
	given salt containing anions and cations studied	
	in I year (Salts : 1 to 12)	
	EAPCET CLASSES	04
	SANKRANTHI HOLIDAYS	
	FROM 11-01-2025 TO 16-01-2025	
	PRE-FINAL EXAMINATIONS	
	FROM 20-01-2025 TO 25-01-2025	06

February 23	PROJECT REVISION	23
	I.P.E. PRACTICALS 2025	
March	I.P.E. THEORY EXAMINATIONS	
23	1 ST WEEK OF MARCH 2025	
	LAST WORKING DAY: 29.03.2025	
	SUMMER VACATION	
	FROM 30-03-2025 TO 01-06-2025	
	ADVANCED SUPPLIMENTARY EXAMINATIONS	
	(IPASE)	
	Last week of May 2025	
	Re-Opening of Colleges: 02-06-2025	

Prepared by: **Smt. G. SRILATHA** JL. In Chemistry

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