•	Y
SVRKGOVERNMENT DEGREE COLLEGE:: NIDADAVOLE TABLE - A - CURRICULAR PLAN - LECTURER WISE	IN IN IN
S V R K GOV TABLE	

10 ACTIVITY HOURS HOURS ALLOTED TE DATE 11 A E DATE 12 ALTERNATIV E DATE 13 E DATE 14 E DATE 15 E DATE 16 E DATE 17 E DATE 18 ACTIVITY 19 ACTIVITY 10 ACTIVITY 11 ACTIVITY 12 ACTIVITY 13 ACTIVITY 14 ACTIVITY 15 ACTIVITY 16 ACTIVITY 17 ACTIVITY 18 ACTIVITY 19 ACTIVITY 10 ACTIVITY 10 ACTIVITY 11 ACTIVITY 12 ACTIVITY 13 ACTIVITY 14 ACTIVITY 15 ACTIVITY 16 ACTIVITY 17 ACTIVITY 18 ACTIVITY 19 ACTIVITY 10 ACTIVITY 10 ACTIVITY 10 ACTIVITY 11 ACTIVITY 12 ACTIVITY 13 ACTIVITY 14 ACTIVITY 15 ACTIVITY 16 ACTIVITY 17 ACTIVITY 17 ACTIVITY 18 ACTIVITY 18 ACTIVITY 19 ACTIVITY 10 ACTIVITY 10 ACTIVITY 10 ACTIVITY 11 ACTIVITY 12 ACTIVITY 13 ACTIVITY 14 ACTIVITY 15 ACTIVITY 16 ACTIVITY 17 ACTIVITY 17 ACTIVITY 18 ACTIVITY 18 ACTIVITY 19 ACTIVITY 19 ACTIVITY 10 ACTIVITY 10 ACTIVITY 10 ACTIVITY 11 ACTIVITY 12 ACTIVITY 13 ACTIVITY 14 ACTIVITY 15 ACTIVITY 16 ACTIVITY 17 ACTIVITY 17 ACTIVITY 18 A	
CONDUCTED CULOTED CULO	
E ALLOTED S	
SE SHUOH	
> S ACTIVITY 5	
© MHETHER ₹ CONDUCTED FENATIV CONDUCTED TENATIV TEN	
∞ CONDUCTED AHETHER	
HOURS A ALLOTED A	
SEMESTER: IV PA HOURS CURRICULAR ACTIVITY HOURS ALLOTED ALLOTED CONDUCTED CONDUCTED AMHETHER CONDUCTED AMHETHER AMHE	
E ACTIVITY & 3	
023 023 023 026 023	
YEAR: 2022-2023 YEAR: 2022-2023 ADDITIONAL IMPUT ADDITIONAL IMPUT ADDITIONAL MADDITION Ferminology, Double salts definition, EAN Rule.	
IB.SC (MPC) YEAR: 2022- INDEXITY INPORTATION IN complexes with and coordination coordination (EAN Rubbers 4 and 6. Valence mbers 4 and 6. Valence where 4 and 6. Valence corbital complexes.	
is all the second of the secon	
SYLLABUS TOPIC SYLLABUS TOPIC SYLLABUS TOPIC SYLLABUS TOPIC ONIT I: INFORMATION CHEMISTRY Coordinator Chemistry: IUPAC Coordinator Chemistry: IUPAC Coordinator Chemistry: IUPAC Coordinator Chemistry: IUPAC Coordination numbers 4 and 6. Stereoisomerism in complexes w stereoisomerism in complexes v coordination numbers 4 and 6. Storic VBT): Bond Theory (VBT): Bond Theory (VBT):	_
SYLLABUS TOPIC SYLLABUS TOPIC SYLLABUS TOPIC SYLLABUS TOPIC SYLLABUS TOPIC SYLLABUS TOPIC OORDINATION UNIT I: INFORMATION COORDINATOR Of coordination nomenclature of coordination nomenclature of coordination stereoisomerism in comple stereoisome	Limitations of VB1
SYLLA RY CLASS: RY CLASS: RY CLASS: CLASS: RY CLASS: RY CLASS: RY CLASS: SYLLA SYLLA	nitation
CHECON COOR STEERS STRY CHECON BOTH STEERS COOR STEERS COOR BOTH INDIVIDUAL STEERS COOR COOR COOR COOR COOR COOR COOR CO	
NAME OF THE LECTURER: Smt. M.USHA RANI DEPARTMENT: CHEMISTRY CLASS: IIB.SC (TASE) WEEK SMT. M.USHA RANI WEEK SMT. M.USHA RANI LASS: IIB.SC (TASE) WAS A CLASS: IIB.SC (TASE) WAS A CLASS TO CLASS WAS A CLASS TO CLASS WAS A CLASS TO CLASS TO CLASS WAS A CLASS TO CLA	
TMENT: C TMENT: C MONTH & WEEK 3rd week	
MONTH & WEEK	
NAME DEPAR	1

4th week	4	Crystal field effect, octahedral symmetry. Crystal field stabilization energy (CFSE), Crystal field effects for weak and strong fields. Tetrahedral symmetry, Factors affecting the magnitude of crystal field splitting energy, Spectrochemical series,		Power point		Audio visual quiz	-	
1st week	4	Comparison of CFSE for Octahedral and Tetrahedral complexes, Tetragonal distortion of octahedral geometry, Jahn-Teller distortion, square planar coordination.		Power point	4			
2nd week	4	UNIT II. Inorganic Reaction Mechanism: Introduction to inorganic reaction mechanisms. Concept of reaction pathways, transition state, intermediate and activated complex. Labile and inert complexes, ligand substitution reactions -SN1 and SN2, Substitution reactions in square planar complexes, Trans-effect, theories of trans effect and its applications	Lability and inertness of complexes and equilibrium based explanation of stability.	Digital class	3	Assig	1	
3rd week	4	2. Stability of metal complexes: Thermodynamic stability and kinetic stability, factors affecting the stability of metal complexes, chelate effect, determination of composition of complex by Job's method and mole ratio method.		Demonstration	4			

		-	1
		Stude nt semin ar	Assign
- 3	4	ю	6
Power point Mid1	Lecture	Lecture	Power point
		Applications of phase rule	
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, Sodium / K - pump, carbonic anhydrase and carboxypeptidase	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, Cis-platin as an anti-cancer drug. Iron and its application in bio-systems, Haemoglobin, Myoglobin. Storage and transfer of iron.	UNIT-III: PHYSICAL CHEMISTRY 1 .Phase rule: Concept of phase, components, degrees of freedom. Thermodynamic derivation of Gibbs phase rule. Phase diagram of one component system - water system,	Study of Phase diagrams of Simple eutectic systems i) Pb-Ag system, desilverisation of lead ii) NaCl-Water system, Congruent and incongruent melting point- Definition and examples for systems having congruent and incongruent melting point, freezing mixtures.
4	4	4	4
4th week	1st week	2nd week	3rd week
	got .		

t	REMARKS	41
4	3	4 4
ooint	Lecture Mid2	Demonstration
Power point	Le	Dea
tometr ions.		
Conductometr ic titrations.	L	
M.	and its applications, Definition of transport number, determination of transport number by Hittorf's method. Debye-Huckel-Onsager's equation for strong electrolytes (elementary strong electrolytes (elementary).	conductivity measurements- conduct conductivity measurements- conduct conduct single electrode potential. Single electrode potential, Types of electrodes with examples: Metal- metal ion, Gas electrode, Inert electrode, Redox electrode, Metal-metal insoluble salt- salt anion. Determination of EMF of a cell, Nernst equation, Applications of EMF measurements - Potentiometric titrations. Fuel cells- Basic concepts, examples
NIT IV: Slectrochemistry: Specific conductance, equivalent conductance and molar conductance. Definition and effect of dilution. Cell constant. Strong and weak electrolytes, Kohlrausch's law	and its applications, Definition of transport number, determination of transport numb Hittorf's method. Debye-Huckel-Onsager's equati strong electrolytes (elementary strong electrolyte), Application of treatment only),	conductivity measurements- conconductivity measurements- conmetric titrations. Electrochemical Single electrode potential, Types of electrodes with examples: Metal- metal ion, examples: Metal- metal ion, Redox electrode, Inert electrode, Redox electrode, Inert electrode, Cas electrode, Inert electrode, Redox electrode, Inert electrode, Redox electrode, Insoluble salt- salt anion. Determination of EMF of a cell, Nernst equation, Applications of EMF measurements - Potentiometric titrations. Fuel cells- Basic concepts, examples
UNIT IV: Electrochemistry: Specific conductance, equivalent conductance and molar conductance - Definition and effect of dilution. Cell and effect of dilution. Cell constant. Strong and weak electrolytes, Kohlrausch's electrolytes,	and its applications, Definition of transp determination of tra Hittorf's method. Debye-Huckel-Ons strong electrolytes treatment only). Al	conductivity measuremen metric titrations.Electrool Single electrode potential Single electrode potential Examples: Metal- metal i examples: Metal- metal i gas electrode, Inert elect Redox electrode, Metal-insoluble salt- salt anion Determination of EMF cell, Nernst equation, Applications of EMF measurements - Potentiometric titration cells- Basic concepts, examples
UNIT IV: Electroche conductar conductar and effec constant. electroly	and its Definit determ Hittorf Debye strong treatm	Singla Type exam Gas (G
4	4	4
N /	1st week	2nd week
		AND STATE OF THE PROPERTY OF T

	Student semina r				5
		4	4	2	
	Power point	Demonstration	Mind mapping	Lecture	
	Third order rate eqution				5
	Chemical Kinetics: Chemical Kinetics: The concept of reaction rates. Effect of temperature, pressure, catalyst and other factors on reaction rates. Order and molecularity of a reaction, Derivation of integrated rate equations for zero, first and second order reactions (both for equal and unequal concentrations of reactants). Half-life of a reaction. General methods for determination of order of a reaction.	Concept of activation energy and its calculation from Arrhenius equation. Theories of Reaction Rates: Collision theory and Activated Complex theory of bimolecular reactions. Comparison of the two theories (qualitative treatment	only). Enzyme catalysis- Specificity,factors affecting enzyme catalysis, Inhibitors and Lock & key model. Michaels- Menten equation- derivation,	Menten constant Revision	
-	4	4	4	4	
		4th week	1st week	2nd week	

SIGNATURE OF THE HEAD OF THE DEPARTMENT

SIGNATURE OF THE PRINCIPAL

SIGNATURE OF THE LECTURER