SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR PLAN (Year) — Inorganic and organic chemistry

NAMR OF THE LECTURER: B. Tulasi Koteswaribai

CLASS : IBSc Semester : I Paper : I

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
June	3rd	4	Syllabus Dictation, organo metallic chemistry - Introduction Nomenclature,	—	—	—	—	—	—	—	—	—
			preparation, properties and applications of alkyls of Li and Mg.	uses of organo metallic compounds	—	—	—	—	—	—	—	—
	4th	5	Alkenes - preparation Heat of hydrogenation and stability of alkenes, Markonikoff's &	—	—	—	—	—	—	—	—	—
			Anti markonikoff's Dienes - Types, reaction 1,2, 1,4 addition of HBr To 1,3-Butadiene & Diel's-Alder.	—	—	—	—	—	—	—	—	—
July	1st	5	Alkynes - preparation, Acidity of acetylenic hydrogen, Formation of metal acetylides, prep of higher acetylenes,	—	—	—	—	—	—	—	—	—
			Metal-ammonia reduction physical prop. and chemical reactivity:- Elec add of X_2, HX, H_2O, oxid, reduction polymerization.	—	—	—	—	—	—	—	—	—

B. Tulasi Koteswaribai
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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER B.Tulasi Koteswari bai

CLASS : IBSc Semester : I Paper : I

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
August	1st		Benzene and its reactivity concept of resonance, resonance energy, Heat of hydrogenation and combustion Mention of structure of benzene.	—	—	—	—	—	—	—	—	—
	2nd	3	Concept of aromaticity - Aromaticity Huckel's rule - application to Benzenoid and non benzenoid. General mechanism of	—	—	—	—	—	—	—	—	—
			electrophilic Substitution.	—	—	—	—	—	—	—	—	—
	3rd	5	Mechanism of Nitration Friedel craft's alkylation acylation, orientation of aromatic substituted	—	—	—	—	—	—	—	—	—
			Definition of ortho para and meta directing groups Ring activating & deactivating Electronic interpretation NO2 & phenolic group	—	—	—	—	—	—	—	—	—
	4th	7	orientation of (i) Amino, methoxy & methyl (ii) Nitro, Carboxy, Nitrile & Carbonyl, Sulphonic acid (iii) Halogens.	—	—	—	—	—	—	—	—	—

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR — **PLAN (Year)**

NAMR OF THE LECTURER – S. KRISHNA VENI

CLASS : II BSc – CBZ Semester : III Paper : III Inorganic and organic chemistry

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
June	1st	2hrs	Chemistry of d-block elements – Electronic Configurations	uses of d-block elements	–	–	–	–	–	–	–	–
	2nd	5hrs	Chemistry of d-block elements – Variable valence, magnetic properties, catalytic properties, and ability to form complexes	–	–	–	–	–	–	–	–	–
	3rd	5hrs	Stability of various oxidation states. Chemistry of d-block elements – Chemistry of lanthanides – electronic structure oxidation states.	–	–	–	–	–	–	–	–	–
	4th	5hr + 1 hr	lanthanide contraction, Consequences of lanthanide contraction and magnetic properties. Chemistry of actinides.	f-block elements applications	–	–	–	–	–	–	–	–
July	1st	5hrs	Halogen Compounds – nomenclature and classification nucleophilic substitution reactions – SN^1 & SN^2	–	–	–	–	–	–	–	–	–
	2nd	5hrs	Hydroxy Compounds – nomenclature and classification, preparation of alcohols, phenols, physical properties, identification of alcohols, chemical properties, Role of	–	Seminar	01	yes	–	–	–	–	–

S. Krishna Veni
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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER: C. KRISHNA VENI

CLASS: II BSC – CBZ Semester: III Paper: III Inorganic & organic chemistry

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
July	3rd	5hrs	Hydroxy Compounds – Fries, azo coupling, pinacol – pinacolone rearrangement – active methylene compounds	–	Quiz	01	yes	–	–	–	–	–
	4th	5hrs	Active methylene Compounds, Theories of binding in metals.	–	–	–	–	–	–	–	–	–
August	1st	5hrs	Theories of binding in metals: metal Carbonyls – EAN rule	–	Group discussion	01	yes	–	–	–	–	–
	2nd	3hrs	metal Carbonyls – classification & Structure of metal Carbonyls.	–	–	–	–	–	–	–	–	–
	3rd	5hr	metal Carbonyls – structures, Carboxylic acid and derivatives	–	debate	01	yes	–	–	–	–	–
	4th	4hrs 3hr	Carboxylic acid & derivative – prep, prop, physical and chemical properties, Carbonyl Compounds.	–	–	–	–	–	–	–	–	–

C. Krishna Veni
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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR — **PLAN (Year)**

NAMR OF THE LECTURER S. KRISHNA VENI

CLASS : II BSC – CBZ Semester : III Paper : III Inorganic & organic chemistry

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
September	1st	4hrs	Carbonyl Compounds – Synthesis, physical properties, nu addn reacn, Base Catalysed reacn	uses of aldehydes & ketones.	–	–	–	–	–	–	–	–
	2nd	4hrs	Carbonyl Compounds – oxidations & reductions reactions, Analysis of aldehydes & ketones	–	–	–	–	–	–	–	–	–
	3rd											

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR PLAN (Year) Inorganic, Organic & Physical Chemistry

NAMR OF THE LECTURER V. RAJA RAJESWARI

CLASS : III BSC Semester : V Paper : V

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
	3	4	Preparation of amines, physical properties & Basic character of amines.	Explanation of diazotisation with practical	Preparation of azodye	-	-	-	Group Discussion	1	Yes	-
	4	2	steric effects and substituent effects chemical properties Alkylation, Acylation	-	-	-	-	-	-	-	-	-
AUGUST	1	4	Carbylamine, Hinsberg Reaction with Nitrous acid Electro philic substi-tution, Diazotization	-	-	-	-	-	Debate	1	yes	-
	2	2	Thermodynamics First law statement def of internal energy and enthalpy	Definitions of Thermo dynamics	-	-	-	-	~~Quiz~~	-	-	-
	3	4	Heat capacities, Joule-Thomson effect calculation of w for Isothermal expansion	-	-	-	-	-	-	-	-	-
	4	4	calculation of w for adiabatic reversible expansion. Kirchoff's equation. II law, Carnot cycle	-	-	-	-	-	Quiz	1	yes	-

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR PLAN (Year) Inorganic, Organic & Physical Chemistry

NAMR OF THE LECTURER V. RAJA RAJESWARI

CLASS : III BSC Semester : V Paper : VA

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
June	1	4	Introduction	—	—	—	—	—	—	—	—	—
	2	4	Coordination chemistry IUPAC, Bonding theories - Werner's, Sidgwick's, Valence bond theory	Definitions of the terms used in	—	—	—	—	—	—	—	—
	3	4	Crystal field theory - Splitting of d-orbitals in octahedral tetrahedral square planar Complexes	Coordination Chemistry	—	—	—	—	—	—	—	—
	4	4	Isomerism Spectral and magnetic properties of metal Complexes.	Determination of X by Gouy's method	—	—	—	—	Seminar	1	Yes	—
July	1	4	Stability of metal Complexes - Factors affecting the stability of Complexes, Job's & molerati method.	Kinetic Stability & Thermodynamic stability	—	—	—	—	—	—	—	—
	2	4	Nitro hydrocarbons: Nomenclature, classification Tautomerism, preparation Reactivity, Amines	Definition of Nitrohydro-Carbon with examples.	—	—	—	—	—	—	—	—

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR PLAN (Year) Inorganic, Organic & Physical Chemistry

NAMR OF THE LECTURER V. RAJA RAJESWARI

CLASS : III BSc Semester : V Paper : V

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
September	1	4	Carnot theorem. Entropy, change in reversible & irreversible processes.	—	—	—	—	—	—	—	—	—
	2	3										
	3	4										

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER: P. RAMYA KRISHNA

CLASS : III BSc Semester : V Paper : V B Inorganic, organic and physical chemistry

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
June	1	1	Syllabus - Dictation	—	—	—	—	—	—	—	—	—
	2	4	Heterocyclic compounds, Introduction, definition, Aromatic character of Pyrrole, Furan, thiophene, preparation methods electrophilic substitution reactions, pyridine Basicity, aromaticity	—	—	—	—	—	—	—	—	—
	3	4	pyridine, properties, Nucleophilic reactions, carbohydrates, classification, preparation, structural elucidation of Glucose & Fructose. chemical reactions	—	—	—	—	—	—	—	—	—
	4	5	of Glucose & Fructose, Interconversions	uses of Glucose and Fructose, Tests of glucose & Fructose	—	—	—	—	—	—	—	—

P. Ramya Krishna
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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR PLAN (Year) — Inoganic, oganic & Physical density

NAMR OF THE LECTURER: P. RAMYA KRISHNA

CLASS: III BSC Semester: V Paper: V B

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
July	1	4	photochemistry - process. Laws of photochemistry, HCl, HBr formation, Jablonski diagram	—	Seminar	01	yes	—	—	—	—	—
	2	3	fluorescence, phosphorescence, rate of reaction, rate constant of 1st & and order reactions	—	—	—	—	—	—	—	—	—
	3	4	rate constant derivation of zero order & methods for determination of a order of a reaction	—	—	—	—	—	—	—	—	—
	4	4 (4+3) Imid Exams	Effect of Temperature Arrhenius equation concept of activation energy, classification	—	—	—	—	—	—	—	—	—
August	1	4	of Amino acids preparation methods of amino acids	Applications of Amino acids	—	—	—	—	—	—	—	—
	2	2	physical properties zwitter ion Structure Iso electric point	—	—	—	—	—	—	—	—	—

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER: P.RAMYA KRISHNA

CLASS : III BSC Semester : V Paper : V B Inorganic, Organic & Physical Chemistry

MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
August	3	3	chemical reactions of amino acids. peptide bonds- Lactam formation	Lactams formation	Group Discussion	01	yes	—	—	—	—	—
	4	6 (4+2)	Structure of proteins & peptides Nomenclature of proteins & peptides	uses of proteins	—	—	—	—	—	—	—	—
September	1	4	reactivity of metal complexes, labile & inert complexes, ligand substitution	—	—	—	—	—	—	—	—	—
			reactions, SN^1 & SN^2 reactions, Trans effect	—	—	—	—	—	—	—	—	—
	2	3	II mid exams	—	—	—	—	—	—	—	—	—
	3	4	Biological significance of Na, K, mg, Ca, Fe, Co, Ni, Cu, Zn, Ca- Hb, myoglobin & chlorophyll	—	Quiz	01	yes	—	—	—	—	—

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