SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR **PLAN (Year)**

NAMR OF THE LECTURER R. Lakshmi Tulasi

CLASS : I MPC + ZFC Semester : I Paper : Inorganic & 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
October	3rd	02	Syllabus dictation, Unit-I:-Introduction of P-block elements.	Types of chemical bonds,	-	-	-	-	-	-	-	-
	4th	05	Group-13: Preparation and structure of Diborane, Borazine	metals and Non metals.	-	-	-	-	-	-	-	-
			Preparation, classification and uses of silicones.	-	-	-	-	-	-	-	-	-
			Preparation and structure of phosphonitrilic Halides.	-	-	-	-	-	-	-	-	-
			$(PNCl_2)_n$ where $n = 3, 4$	-	-	-	-	-	-	-	-	-
November	1st	05	oxides and oxoacids of sulphur (structures only)	-	-	-	-	-	-	-	-	-

R. Lakshmi Tulasi
Signature of the Lecturer

Signature of the HOD

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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year)

NAME OF THE LECTURER: R. Lakshmi Tulasi

CLASS: I M.Sc + 2 Sc Semester: I Paper: Inorganic 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
			Pseudohalogens, structures of Inter halogen compounds.	-	-	-	-	-	-	-	-	-
			unit-II: characteristics of d-block elements	-	Remedial	01	Yes	-	-	-	-	-
			with special reference to E.C, variable valence.	-	-	-	-	-	-	-	-	-
November	2nd	04	Magnetic Properties, catalytic Properties	-	-	-	-	-	-	-	-	-
			& ability to form complexes, stability of various o.s.	-	-	-	-	-	-	-	-	-
	3rd	05	chemistry of f-block elements: chemistry of Lanthanides-	-	-	-	-	-	-	-	-	-

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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER: R. Lakshmi Tulasi

CLASS : I MPC + 2 EC Semester : I Paper : Inorganic 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
			Electronic structure, O.S, Lanthanide contraction,	-	Will be shown ppt by Lanthanide contraction	01	Yes	-	-	-	-	-
			conseques of Lanthanide contraction,	-	-	-	-	-	-	-	-	-
			magnetic properties chemistry of Actinides: E.C, O.S	-	-	-	-	-	-	-	-	-
November	4th	06	Actinide contraction comparision of	-	Remedial	01	Yes	-	-	-	-	-
			Lanthanides & actinides. Theories of Bonding	-	-	-	-	-	-	-	-	-
			in metals: V.B.T & free e theory,	-	-	-	-	-	-	-	-	-

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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR **PLAN (Year)**

NAMR OF THE LECTURER R. Lakshmi Tulasi

CLASS : IMPC+2EC Semester : I Paper : Inorganic 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
			explanation of the rmal & electrical	-	-	-	-	-	-	-	-	-
			conductivity of metals based on these theories.	-	Seminar	01	Yes	-	-	-	-	-
			Band theory-formation of bands, exp-	-	-	-	-	-	-	-	-	-
			lanation of conductors, semiconductors & insulators.	-	-	-	-	-	-	-	-	-
December	1st	05	Unit-III:- Symmetry in crystals. The Law of Symmetry.	-	Will be shown PPT by Symmetry	01	Yes	-	-	-	-	-
			Law of constancy of Interfacial angles The law of rationality	-	-	-	-	-	-	-	-	-

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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER R. Lakshmi Tulasi

CLASS : I MPC + 2 FC Semester : I Paper : Inorganic 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
			of indices, Miller indices. Definition of lattice Point,	-	-	-	-	-	-	-	-	-
			Space lattice, unit cell. Bravis lattices & crystal systems.	-	-	-	-	-	-	-	-	-
	2nd	02	X-ray diffraction & crystal structure Bragg's law.	-	Remedial	01	Yes	-	-	-	-	-
			Powder methods. Defects in crystals stoichiometric &	-	-	-	-	-	-	-	-	-
			Non-stiochiometric defects.	-	-	-	-	-	-	-	-	-
	3rd	05	1. Gaseous state:- vanderwaal's eqn of state.	-	-	-	-	-	-	-	-	-

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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER R. Lakshmi Tulasi

CLASS : IMPC+2FC Semester : I Paper : Inorganic 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
			Andrew's isotherms of co2, continuity of state.	-	Debate	01	Yes	-	-	-	-	-
			critical Phenomena, Relationship b/n critical constants and	-	-	-	-	-	-	-	-	-
			Vanderwaal's constant law of corres Ponding states.	-	-	-	-	-	-	-	-	-
Dec	4th	06	Joule-Thomson effect. Inversion temperature.	-	Will be shown PPT by Joule-Thomson effect.	01	Yes	-	-	-	-	-
			liquid state:- Liquid crystals, mesomorphic state.	-	-	-	-	-	-	-	-	-
			Differences b/n liquid crystal & solid/ liquid.	-	-	-	-	-	-	-	-	-

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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year) — Inorganic and Physical chemistry

NAMR OF THE LECTURER: R. Lakshmi Tulasi

CLASS: IMPC+ZFC Semester: I Paper: 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
			classification of liquid crystals into smectic & Nematic.	-	-	-	-	-	-	-	-	-
			Appn of LIQuid crystals as LCD devices.	-	-	-	-	-	-	-	-	-
			Unit-V:- Solutions:- Azeotropes-HCl, H_2O systems.	Definitions of concentration terms.	-	-	-	-	-	-	-	-
Dec	5th	01	and ethanol-water system.	Types of binary solns. Types of liq-liq solns	-	-	-	-	-	-	-	-
Jan	1st	05	Partially miscible liquids-Phenol H_2O system.	-	Remedial	01	Yes	-	-	-	-	-
			critical solution temperature (CST) effect of impurity	-	-	-	-	-	-	-	-	-

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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER R. Lakshmi Tulasi

CLASS : IMPC + ZFC Semester : I Paper : Inorganic 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
			on consulate temp-erature. Immiscib-le liquids & steam	-	-	-	-	-	-	-	-	-
			distillation. Nernst distribution law.	-	Group discu-ssion	01	yes	-	-	-	-	-
			calculation of the Partition coefficient.	-	-	-	-	-	-	-	-	-
			Applications of distri-bution law.	-	-	-	-	-	-	-	-	-
	2nd	02	Ionic equilibrium:- Ionic Product, com-	-	-	-	-	-	-	-	-	-
			mon ion effect & its applications.	-	-	-	-	-	-	-	-	-

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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year) — Inorganic and Physical Chemistry

NAME OF THE LECTURER: R. Lakshmi Tulasi — CLASS: INPC+2FC — Semester: I — Paper:

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
	3rd	03	solubility & solubility Product. calculations based on solubility	-	-	-	-	-	-	-	-	-
			Product. Dilute solutions: colligative properties	-	PCmedial	01	Yes	-	-	-	-	-
			RLVP, Raoult's law. Osmotic Pressure,	-	-	-	-	-	-	-	-	-
	4th	06	elevation in B.P & depression in F.P	-	Quiz	01	Yes	-	-	-	-	-
			experimental methods for the determination of molar mass of a non-volatile solute using	-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER: R. Lakshmi Tulasi

CLASS: IMPC+ZFc Semester: I Paper: Inorganic 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
			Osmotic Pressure. Elevation in B.P & depression in F.P	-	Will be shown PPT by elevation in B.P	01	Yes	-	-	-	-	-
Feb	1st	05	Abnormal colligative properties.	-	-	-	-	-	-	-	-	-
			Vant Hoff factor	-	-	-	-	-	-	-	-	-
	2nd	05	Revision for II Mid exams.	-	-	-	-	-	-	-	-	-
	3rd	05	II Mid exams	-	-	-	-	-	-	-	-	-
	4th	05	Revision	-	-	-	-	-	-	-	-	-

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CURRICULUM LECTURER WISE 2022-2023

ANNUAL CURRICULAR PLAN (Year)

NAMR OF THE LECTURER: K. SUJATHA.

CLASS: II B.Sc Semester: III Paper: III Organic chemistry & Spectroscopy

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
Oct	4th	2	UNIT-I: Syllabus dectation, Introduction	—	—	—	—	—	—	—	—	—
Nov	1st	5	Methods of preparation and properties, nucleophilic substitution reactions with stereochemical aspects and effect of solvent, nucleophilic substitution Vs elimination, williamson's synthesis Aryl halides- preparation & properties nucleophilic aromatic substitution. S_N, Ar.	—	—	—	—	—	—	—	—	—

K. Sujatha
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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022-2023

ANNUAL CURRICULAR PLAN (Year) Organic chemistry & spectroscopy

NAMR OF THE LECTURER K. SUJATHA

CLASS : II B.Sc Semester : IV Paper : III

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
NOV	2	4h	Benzyne mechanism Relative reactivity of alkyl, allyl, benzyl	—	—	—	—	—	—	—	—	—
			vinyl and aryl halides towards nucleophilic substitution reactions	—	—	—	—	—	—	—	—	—
			Alcohols & phenols: Alcohols preparation & properties and	—	—	—	—	—	—	—	—	—
			relative reactivity of 1°, 2°, 3° alcohols, Bouvet-Blanc	—	—	—	—	—	—	—	—	—
			reduction, oxidation of diols by per-iodic acid and	—	—	—	—	—	—	—	—	—
			lead tetra acetate, pinacol-pinacalone rearrangement.	Remedial class	—	01	Yes	—	—	—	—	—

K. Sujatha
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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year) Organic chemistry & Spectroscopy

NAMR OF THE LECTURER K. SUJATHA

CLASS : II B.Sc Semester : III Paper : III

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
NOV	3	5	phenols: preparation and properties, acidity and factors	–	–	–	–	–	–	–	–	–
			effecting it, ring substitution reactions Reimer-Tiemann	–	–	–	–	–	–	–	–	–
			and kolbe-schmidt reactions, Fries and claisen rearrangement	–	–	–	–	–	–	–	–	–
			with mechanisms UNIT-II: Carbonyl Compounds: structure	–	–	–	–	–	–	–	–	–
			reactivity, preparation and properties nucleophilic addition	–	–	–	–	–	–	–	–	–
			and nucleophilic addition elimination reactions with ammonia derivative	–	Remedial class	01	Yes	–	–	–	–	–

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CURRICULUM LECTURER WISE 2022-2023

ANNUAL CURRICULAR **PLAN (Year)** Organic chemistry & spectroscopy

NAMR OF THE LECTURER K.SUJATHA CLASS : II B.Sc Semester : III Paper : III

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
NOV	4	5	Mech of aldol & benzoin condensation claisen schmidt,	—	—	—	—	—	—	—	—	—
			perkin, cannizaro and wittig reaction Beckmann and	—	—	—	—	—	—	—	—	—
			Haloform reaction, and Baeyer-Villiger oxidation, α-	—	—	—	—	—	seminar	01	yes	—
			Substitution reactions clemensen reduction, wolf-kishner, with	—	—	—	—	—	—	—	—	—
			Li Alhue NABHu reductions addition reactions of α,β-un	—	—	—	—	—	—	—	—	—
			saturated carbonyl compounds, Michael addition	—	Remedial class	—	—	—	—	—	—	—

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CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year) Organic chemistry & Spectroscopy

NAMR OF THE LECTURER K. SUJATHA

CLASS : II B.Sc Semester : III Paper : IV

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
Dec	1	5h	Active methylene compounds: keto enol tautomerism	—	—	—	—	—	—	—	—	—
			preparation and synthetic applications of diethyl	—	—	—	—	—	Quiz	01	Yes	—
			malonate and ethyl aceto acetate	—	—	—	—	—	—	—	—	—
			UNIT-III : Carboxylic acids and their derivatives:	—	—	—	—	—	—	—	—	—
			General methods of preparation, physical properties	—	—	—	—	—	—	—	—	—
			and reactions of monocarboxylic acids, effect	—	Revision	01	Yes	—	—	—	—	—

K-Sujatha

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CURRICULUM LECTURER WISE 2022- 2023

ANNUAL CURRICULAR — **PLAN (Year)** organic chemistry & spectroscopy

NAMR OF THE LECTURER K. SUJATHA — CLASS : II B.SC — Semester : III — Paper : III

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
			of substituent on acidic strength Typical reactions	—	—	—	—	—	—	—	—	—
			of dicarboxylic acids Hydroxy	—	—	—	—	—	—	—	—	—
Dec	2	4h	Hydroxy acids & unsaturated acids preparations of	—	—	—	—	—	Group discussion	01	Yes	—
			acid chlorides, anhydrides, esters and amides	—	—	—	—	—	—	—	—	—
			Comparative study of nucleophilic substitution at acyl	—	—	—	—	—	—	—	—	—
			group - Mechanism of acidic and alkaline hydrolysis of esters	—	—	—	—	—	—	—	—	—

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CURRICULUM LECTURER WISE 2022-2023

ANNUAL CURRICULAR PLAN (Year) organic chemistry & spectroscopy

NAME OF THE LECTURER K. SUJATHA

CLASS : II B.Sc Semester : III Paper : III

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
Dec	3	5h	claisen condensation, Reformatsky reaction and	—	—	—	—	—	—	—	—	—
			Curtius rearrangement reactions Involving H, OH, Ee	—	—	—	—	—	—	—	—	—
			COOH groups, salt formation, anhydride formation, acid chloride	—	—	—	—	—	—	—	—	—
			formation, amide formation and esterification, Degradation of Carboxylic acids by Hons-Diecker reaction, schmidt reaction	—	—	—	—	—	—	—	—	—
				—	—	—	—	—	—	—	—	—
			Arndt-Eistu synthesis HVZ reaction	—	Remedial class	01	Yes	—	—	—	—	—

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CURRICULUM LECTURER WISE 2022-2023

ANNUAL CURRICULAR PLAN (Year) — Organic chemistry & spectroscopy

NAMR OF THE LECTURER: K-SUJATHA

CLASS: II B.Sc Semester: IV Paper: III

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
Dec	4	4	UNIT- IV: Rotation spectroscopy selection rules,	—	—	—	—	—	—	—	—	—
			intensities of spectral lines, delegination of bond lengths of	—	—	—	—	—	—	—	—	—
			diatomic and linear triatomic molecules. isotopic	—	—	—	—	—	—	—	—	—
			substitution.	—	—	—	—	—	—	—	—	—
Jan	1	5	Vibrational spectroscopy: classical equation of vibration,	—	Remedial class	01	Yes	—	—	—	—	—
			computation of force constant Harmonic and	—	—	—	—	—	—	—	—	—

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022- 2023

ANNUAL CURRICULAR PLAN (Year) Organic chemistry & Spectroscopy

NAME OF THE LECTURER K. SUJATHA

CLASS : III B.Sc Semester : IV Paper : III

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
			and anharmonic oscillator	—	—	—	—	—	—	—	—	—
Jan	2	2	Morse potential curve, vibrational degree of freedom	—	—	—	—	—	—	—	—	—
			for polyatomic molecules, modes of vibration	—	—	—	—	—	—	—	—	—
	3	4	selection rules for vibrational transitions fundemental	—	—	—	—	—	—	—	—	—
			frequencies, overtones and hot bands Electronic spectroscopy:	—	—	—	—	—	—	—	—	—
			Energy levels of molecular orbitals selection rules for	—	—	—	—	—	—	—	—	—

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CURRICULUM LECTURER WISE 2022- 2023

ANNUAL CURRICULAR PLAN (Year) organic chemistry & spectroscopy

NAME OF THE LECTURER K. SUJATHA

CLASS : II B.Sc Semester : III Paper : III

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
			electronic spectra types of electronic spectra	—	—	—	—	—	—	—	—	—
Jan	4	4	effect of conjugation chromophore, bathochromic and	—	—	—	—	—	—	—	—	—
			hypsochromic shifts Beer-lamberts law and its	—	—	—	—	—	—	—	—	—
Feb	1	5h	limitations NMR spectroscopy: principles of nuclear	—	Remedial class	01	Yes	—	—	—	—	—
			magnetic resonance equivalent and	—	—	—	—	—	—	—	—	—
			non equivalent protons, position of signals, chemical shift, NMR	—	—	—	—	—	—	—	—	—

K. Sujatha
Signature of the Lecturer

B.R
Signature of the HOD

Signature of the Principal

SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022- 2023

ANNUAL CURRICULAR PLAN (Year) Organic Chemistry & Spectroscopy

NAME OF THE LECTURER K. Sujatha CLASS : II B.Sc Semester : III Paper : III

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
			splitting of signals -spin-spin coupling coupling constants,	–	–	–	–	–	–	–	–	–
Feb	2	5	Applications of NMR with ethyl bromide, ethanol	–	–	–	–	–	–	–	–	–
			acetaldehyde, 1,11,2-tribromo ethane, ethyl	–	–	–	–	–	–	–	–	–
			acetate toluene and acetophenone.	–	–	–	–	–	–	–	–	–
Feb	3	3	Application of visible, ultraviolet & IR spectroscopy:-	–	–	–	–	–	–	–	–	–
			Application of electronic spectroscopy and	–	–	–	–	–	–	–	–	–

K. Sujatha
Signature of the Lecturer

B.R
Signature of the HOD

Signature of the Principal

SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022-2023

ANNUAL CURRICULAR PLAN (Year) — Organic chemistry & Spectroscopy

NAMR OF THE LECTURER: K. Syamala

CLASS: III B.Sc Semester: VI Paper: III

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
Feb	4	5	coood ward rules for calculating λmax of conjugated	—	—	—	—	—	—	—	—	—
			dienes and α,β-unsaturated compounds.	—	—	—	—	—	—	—	—	—
			IR and types of molecular vibrations, functional	—	—	—	—	—	—	—	—	—
			group and finger print region. IR spectra of alkanes	—	Revision	01	Yes	—	—	—	—	—
			alkenes and single alcohols and different	—	—	—	—	—	—	—	—	—
			functional groups	—	—	—	—	—	—	—	—	—

K. Syamala
Signature of the Lecturer

B. R.
Signature of the HOD

Signature of the Principal

SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year)

NAME OF THE LECTURER: V. RAJA RAJESWARI

CLASS: III B.Sc Semester: V Paper: 7 (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
NOV	4	4	Chromatography - Principle, classification,	Definitions of S.P, M.P and chromatography.	—	—	—	—	—	—	—	—
	5	4	Nature of adsorbents, eluents, Rf value, factors affecting Rf values,	Identification of unknown compound with Rf value.	—	—	—	—	—	—	—	—
Dec	1	3	TLC - Principle, Experimental procedure, adsorbents	Introduction of TLC	Explanation by showing TLC plates in lab	—	—	—	—	—	—	—
	2	4	solvents, application and advantages. Paperchromatography - Principle	—	—	—	—	—	—	—	—	—
	3	4	Experimental procedure, choice of paper and solvents	—	showing the whatmann filter papers in lab	—	—	—	—	—	—	—
	4	3	Development - ascending, descending, radial and two dimensional chromatogram	—	—	—	—	—	—	—	—	—

V. R. Raja — Signature of the Lecturer

B. — Signature of the HOD

Signature of the Principal

SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022-2023

ANNUAL CURRICULAR PLAN (Year)

NAME OF THE LECTURER: V. RAJARAJESWARI.

CLASS: III BSC Semester: V Paper: 7(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
	5	4	Applications of Paper Chromatography	—	—	—	—	—	—	—	—	—
Jan	1	4	Column chromatography – Principle, classification,	Introduction of Column	Explanation by showing the column in lab	—	—	—	—	—	—	—
	2	4	Experimental Procedure stationary and mobile phase.	Types of columns	—	—	—	—	—	—	—	—
	3	3	development of the Chromatogram applications.	—	—	—	—	—	—	—	—	—
	4	2	HPLC – Basic Principles, Instrumentation	—	showing the HPLC instrument in pharmacy college	—	—	—	—	—	—	—
Feb	1	4	– block diagram & applications.	—	—	—	—	—	Quiz	1	Yes	—

V. R. Raj
Signature of the Lecturer

Signature of the HOD

Signature of the Principal

SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022-2023

ANNUAL CURRICULAR PLAN (Year)

NAME OF THE LECTURER: V-RAJA RATESWARI.

CLASS: III BSc Semester: V Paper: 7(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
Feb	2	3	Spectrophotometry - Principle Instrumentation - single beam and double	Definition of absorbance, Transmittance,	—	—	—	—	Seminar	1	Yes	—
	3	3	beam spectrometer, Beer-Lambert's Law - Derivation and deviations	Molar absorptivity wavelength frequency	—	—	—	—	Group Discussion	1	Yes	—
	4	4+1	from Beer-Lambert's Law, applications of Beer-Lambert's law - Det. of Fe^{+2}, Mn^{+2} and Pb^{+2}	Determination of Fe^{+3}	—	—	—	—	Debate	1	Yes	—
Mar	1	4	Atomic spectroscopy - Types, atomizer	—	—	—	—	—	—	—	—	—
	2	3	atomic absorption and emission	—	—	—	—	—	—	—	—	—
	3	2	Applications of AAS.	—	—	—	—	—	—	—	—	—

V-R-Raju
Signature of the Lecturer

BQ
Signature of the HOD

Signature of the Principal

SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year)

NAME OF THE LECTURER: V. RAJA RAJESWARI.

CLASS: III BSc Semester: V Paper: 7(B) - Analytical methods in chemistry - 2

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
Nov	4	4	Chromatography - Principle, Classification,	Definitions of S.P, M.P and chromatography.	—	—	—	—	—	—	—	—
	5	4	Nature of adsorbents, eluents, Rf value, factors affecting Rf values,	Identification of unknown compound with Rf value.	—	—	—	—	—	—	—	—
Dec	1	3	TLC - Principle, Experimental procedure, adsorbents,	Introduction of TLC	Explanation by showing TLC plates in lab	—	—	—	—	—	—	—
	2	4	solvents, applications and advantages. Paper chromatography - Principle	—	—	—	—	—	—	—	—	—
	3	4	Experimental procedure, choice of paper and solvents	—	showing the whatmann filter papers in lab	—	—	—	—	—	—	—
	4	3	Development - ascending, descending, radial and two dimensional chromatogram	—	—	—	—	—	—	—	—	—

V. R. Raje
Signature of the Lecturer

B. [illegible]
Signature of the HOD

Signature of the Principal

SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022-2023

ANNUAL CURRICULAR PLAN (Year)

NAME OF THE LECTURER: V. RAJARAJESWARI. CLASS: III BSC Semester: V Paper: 7(B) - Analytical methods for Chemistry-2

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
	5	4	Applications of Paper Chromatography	—	—	—	—	—	—	—	—	—
Jan	1	4	Column chromatography - Principle, classification,	Introduction of Column	Explanation by showing the column in lab	—	—	—	—	—	—	—
	2	4	Experimental Procedure stationary and mobile phase.	Types of columns	—	—	—	—	—	—	—	—
	3	3	development of the Chromatogram applications.	—	—	—	—	—	—	—	—	—
	4	2	HPLC - Basic Principles, Instrumentation	—	showing the HPLC instrument in pharmacy college	—	—	—	—	—	—	—
Feb	1	4	- block diagram & applications.	—	—	—	—	—	Quiz	1	Yes	—

V. R. Raj
Signature of the Lecturer

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU

CURRICULUM LECTURER WISE 2022 - 2023

ANNUAL CURRICULAR PLAN (Year)

NAME OF THE LECTURER: V-RAJA RATESWARI. CLASS: III BSc Semester: V Paper: 7(B) - Analytical methods in chemistry - 2

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
Feb	2	3	Spectrophotometry - Principle Instrumentation - single beam and double	Definition of absorbance, Transmittance,	—	—	—	—	Seminar	1	Yes	—
	3	3	beam spectrometer, Beer-Lambert's Law - Derivation and deviations	Molar absorptivity wavelength frequency	—	—	—	—	Group Discussion	1	Yes	—
	4	4+1	from Beer-Lambert's Law, application of Beer-Lambert's Law - Det. of Fe^{+2} Mn^{+2} and Pb^{+2}	Determination of Fe^{+3}	—	—	—	—	Debate	1	Yes	—
Mar	1	4	Atomic spectroscopy - Types, atomizer	—	—	—	—	—	—	—	—	—
	2	3	atomic absorption and emission	—	—	—	—	—	—	—	—	—
	3	2	Applications of AAS.	—	—	—	—	—	—	—	—	—

V-R-Raje
Signature of the Lecturer

Signature of the HOD

Signature of the Principal