

S V R K GOVERNMENT DEGREE COLLEGE :: NIDADAYOLE
TABLE – A – CURRICULAR PLAN – LECTURER WISE

NAME OF THE LECTURER : Smt. M.USHA RANI
 DEPARTMENT : CHEMISTRY

CLASS: III B.SC (HPC) YEAR: 2022-2023

SEMESTER: V PAPER : V1(B)

SERIAL NUMBER	MONTH & WEEK	HOURS AVAILABLE	SYLLABUS TOPIC	ADDITIONAL INPUT /VALUE ADDITION	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				REMARKS
					ACTIVITY	HOURS ALLOTTED	WHETHER CONDUCTED	IF NOT, ALTERNATIVE DATE	ACTIVITY	HOURS ALLOTTED	WHETHER CONDUCTED	IF NOT, ALTERNATIVE DATE	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	3rd week	4	Unit-1: Quantitative analysis-I 1. A brief introduction to analytical methods in chemistry.	Analysis, types of analysis	Lecture	4							
	4th week	4	2. Principles of volumetric analysis, concentration terms- Molarity, Molality, Normality, v/v, w/v, ppm and ppb. preparing solutions- Standard solution, primary standards and secondary standards.		Demonstration	3			Audio visual quiz	1			
	1st week	4	3. Description and use of common laboratory apparatus- volumetric flask, burette, pipette, beakers, measuring cylinders		Power point	4							
Dec	2nd week	4	Unit-2: Quantitative analysis-2 1. Principles of volumetric analysis: Theories of acid-base (including study of acid-base titration curves),	Conductometric, Potentiometric titrations	Digital class	3			Assignment	1			
	3rd week	4	redox, complex metric, iodometric and precipitation titrations-choice of indicators for the saturations.		Demonstration	4							

	4th week	4	2. Principles of gravimetric analysis: precipitation, coagulation, peptization, co precipitation, post precipitation, digestion, filtration, and washing of precipitate, drying and ignition.		Power point Mid1	3 1							
Jan	1st week	4	Unit-3: Treatment of analytical data Types of errors- Relative and absolute, significant figures and its importance, accuracy - methods of expressing accuracy.	Applications of significant figures	Lecture	4							
	2nd week	4	errors- Determinate and indeterminate and minimization of errors, precision-methods of expressing precision, standard deviation and confidence interval.		Lecture	3			Student seminar	1			
	3rd week	4	Unit-4: separation techniques 1. Solvent Extraction: Introduction, principle, techniques, factors affecting solvent extraction	Applications of solvent extraction	Power point	3			Assignment	1			
	4th week	4	. Batch extraction, continuous extraction and counter current extraction. Synergism. Application- Determination of Iron (III).		Power point	4							
Feb	1st week	4	2. Ion Exchange method: Introduction, action of ion exchange resins, applications.		Lecture Mid2	3 1							
	2nd week	4	UNIT-5: Analysis of water Determination of dissolved solids, total hardness of water	BOD	Demonstration	4							
	3rd week	4	Turbidity, alkalinity, Dissolved oxygen, COD..		Power point	3			Student seminar				
	4th week	4	determination of chloride using Mohr's method		Demonstration	4							
Mar	1st week	4	Revision		Mind mapping	4							
	2nd week	4	Revision		Question and answer method	2			Pre final	2			

SIGNATURE OF THE LECTURER

SIGNATURE OF THE HEAD OF THE DEPARTMENT

SIGNATURE OF THE PRINCIPAL