

SIDDHINATH MHAVIDYALAYA

DEPARTMENT OF CHEMISTRY

TEACHING PLAN -2021-2022

TEACHING PLAN OF SEMESTER – III					
PAPER DSC – 1C(CC-3): Solutions, Phase equilibrium, Conductance, Electrochemistry & Functional Organic Chemistry					
	MODULE	TEACHER	NO OF LECTURES	TO BE COMPLETED	
Unit- I	Chemical Energetic		08	2 MONTHS	
Unit- II	Chemical Equilibrium		05		
Unit- III	Ionic Equilibria		05		
Unit- IV	Aromatic hydrocarbons		05		
Unit- V	Alkyl and Aryl Halides		04		
Unit- VI	Alcohols, Phenols and Ethers		12	2 MONTHS	
Unit- VII					
Unit- VIII					
PAPER DSC – 1B (P)					
Unit- I	Preparation of buffer solutions (Sodium acetate-acetic acid)		09		2 MONTHS
Unit- II	Purification of organic compounds by crystallization (from water and alcohol) and distillation.				
Unit- III	Preparations: Mechanism of various reactions involved to be discussed. Recrystallisation, determination of melting point and calculation of quantitative yields to be done. (Bromination of Phenol/Aniline , Benzoylation of amines/phenols)				

TEACHING PLAN OF SEMESTER – IV (2019-2020)				
PAPER DSC1DT: Coordination Chemistry, States of matter Chemical Kinetics				
	MODULE	TEACHER	NO OF LECTURES	TO BE COMPLETED
Unit- I	Transition Elements (3d series)		04	2 MONTHS
Unit- II	Coordination Chemistry		07	
Unit- III	Crystal Field Theory		05	
Unit- IV	Kinetic Theory of Gases , Liquids & Solids		10	
Unit- V	Chemical Kinetics		08	
PAPER DSC1DP: Coordination Chemistry, States of matter & Chemical Kinetics				
Unit- I	Semi-micro qualitative analysis using H ₂ S of mixtures - not more than four ionic species (two anions and two cations and excluding insoluble salts) out of the following: Cations : NH ₄ ⁺ , Pb ²⁺ , Ag ²⁺ , Bi ³⁺ , Cu ²⁺ , Cd ²⁺ , Sn ²⁺ , Fe ³⁺ , Al ³⁺ , Co ²⁺ , Cr ³⁺ , Ni ²⁺ , Mn ²⁺ , Zn ²⁺ , Ba ²⁺ , Sr ²⁺ , Ca ²⁺ , K ⁺ Anions : CO ₃ ²⁻ , S ²⁻ , SO ₂ ⁻ , S ₂ O ₃ ²⁻ , NO ₃ ⁻ , CH ₃ COO ⁻ , Cl ⁻ , Br ⁻ , I ⁻ , NO ₃ ⁻ ,SO ₄ ²⁻ , PO ₄ ³⁻ , BO ₃ ³⁻ , C ₂ O ₄ ²⁻ , F ⁻		10	2 MONTHS
Unit- II	Determination of the surface tension of a liquid or a dilute solution using a stalagmometer.		04	
Unit- III	Determination of the relative and absolute viscosity of a liquid or dilute solution using an Ostwald's viscometer.		04	