

SYLLABUS :-

Prerequisite : CY29001 Kinetics of salt effect and ionic strength (persulfate-iodine reaction); Kinetics of inversion of cane sugar in presence of an acid; Determination of activation energy in the bromide-bromate clock reaction; Determination of CMC by surface tension method; Determination of partition coefficient of iodine between water and  $\text{CCl}_4$  / Equilibrium constant for tri-iodide formation; Dimerization of benzoic acid by partition method; Determination of indicator constant using spectrophotometric method; Adsorption of acetic acid on charcoal studied by Freundlich and Langmuir isotherms; Determination of the Dissociation constant of a weak electrolyte; Effect of pH on absorption spectra of paranitrophenol (PNP); Probing polymer-surfactant interaction by surface tension method, Charge transfer complex formation between anthracene and picric acid, To study the formation of charge transfer complex between 1,2,4,5 Tetramethylbenzene and Tetracyanoethylene in various solvents, Study of an oscillatory reaction by EMF and absorbance measurement, To study the mutarotation of D-Glucose at different pH, To study the fluorescence quenching of Anthracene by  $\text{CCl}_4$  in n-hexane and ethanol, Determination of Critical micellar concentration of Sodium Dodecyl Sulphate (SDS) in water and in presence of salt, Comparative study of Twisted Intramolecular Charge Transfer (TICT) of 4-N, N-Dimethylaminebenzonitrile (DMABN) in different solvent by Fluorescence Spectroscopy, Determination of activation energy and entropy of activation for acid catalyzed ester hydrolysis; Determination of Unit Cell Dimension and Density of Some Binary Compounds of Cubic System by X-Ray Diffraction