

Paper – III CHN-603(A) Analytical Chemistry

Unit :1

Molecular spectroscopy UV & visible : Principle theory, Choice of solvent, Instrumentation & applications.

Atomic spectroscopy : Atomic absorption & fluorescence spectroscopy- Introduction, sample admission techniques, Instrumentation-interferences- Analytical applications. IR, non-dispersive IR & FTIR-Fourier transform IR spectroscopy-principle, Instrumentation & applications.

IR, non-dispersive IR & FTIR-Fourier transform IR spectroscopy-Principle, Instrumentation & application.

Unit :2

Thermal Analysis :- TGA, DTA, DSC, DTG - Principle, Instrumentation & analytical applications.

Surface characterisation by spectroscopy & Electromicroscopy:- Introduction, spectroscopic. methods for surface analysis

Role of Thermal Analysis in characterization of polymers.

Unit :3

Liquid chromatography HPTLC :- Principle, Instrumentation & application
super critical fluid chromatography

Electrochromatography :- principle of electrophoresis , dental assembly, Reverse osmosis, Electro dialysis, zone electrophoresis, curtain electrophoresis. Capillary electrophoresis – applications.

Unit :4

Super critical Fluid Chromatography Into molecular for as in SFC, Fluid & haze Behavior, Instrumentation Method Development.

Capillary electrophoreses : theory, Instrumentation Method Development & validation.