

SYLLABUS :-

Prerequisite: Nil

Introduction to Linear Algebra required for Group Theory.

Introduction to group theory:

Definitions and theorems; Molecular Symmetry and point groups; Representation of groups: great orthogonality theorem, character table.

Group Theory and Quantum Mechanics: wave functions as basis of irreducible representations, the direct product, identification of non-zero matrix elements. Normal mode analysis.

Books: Mathematical Methods in Physical Sciences, M.L. Boas; Chemical Applications of Group Theory, F.A. Cotton