

First Year - First Semester

Paper 102101 Inorganic Chemistry 2 Credits, 50 Marks (30 Hrs)

3 Hrs / Week

I. Atomic Structure:

08 Hrs

Atomic orbital's, Quantum numbers, Heisenberg uncertainty principle, shapes of s, p, d orbital's. Aufbau and Pauli exclusion principles. Hund's multiplicity rule. Electronic configurations of the elements, Bohr's atomic model (Qualitative aspect only).

II. Periodic Properties:

07 Hrs

Atomic and Ionic radii, Ionization Energy, Electron affinity and Electro negativity. Trends in periodic table and application in predicting and explaining the chemical behaviour.

III. S-Block Elements:

08 Hrs

Comparative study, diagonal relationship, salient features of hydrides, solvation and complexation tendencies including their function in biosystems.

IV. Theory of volumetric Analysis :

07 Hrs

Types of titrations, volumetric apparatus, calibration of pipette and burette. Indicators used in pH - titrations, oxidizing agents used in titrations. Theory of Internal, External and self indicators for redox titration.