

LESSON PLAN OF CHEMISTRY FOR SESSION 2022-23 Semester-III

(Inorganic, Physical & Organic Chem.)

B.Sc. - 1st (Chemistry) (Sem I)

B.Sc. II (Sem. 3rd)

September 1st week (Physical Chemistry)

Gasous state - kinetic theory, Maxwell's

distribution, calculation of diff. velocity, rms vel.

2nd week Collision no., diameter, λ , mean free

path, Vander waal eq. and application (T_b)

3rd week Critical phenomenon and their

determination, TV behaviour of real gases.

4th week Relationship b/w critical constant,

Compressibility factor, The law of corresponding

states.

October 1st week (Inorganic Chemistry)

Atomic structure - De Broglie concept,

Heisenberg uncertainty principle, atomic orbital,

Quantum no., l, m, s , distribution curve

2nd week \rightarrow shape of orbitals, Aufbau, Hund's,

Pauli exclusion principle, electronic configuration,

Slater's rule, Effective nuclear charge.

3rd week

Crystals - Crystal field splitting complex.

Dr. Dimpally
(Assistant Professor, Chemistry)

September-1st week (Inorganic Chemistry)

d-block elements - definition, position, general

characteristics, comparison of 3d with 4d & 5d elements.

2nd week - Latimer - Frost diagram, structure and

properties of TiO₂, VOCl₂, FeCl₃, CuCl₂, NiCO₃

3rd week Physical Chemistry (Thermodynamics)

definitions, state and path function, heat & work

4th week - First law of thermodynamics.

Concepts of internal energy and enthalpy, heat

capacities, Joule Thomson coefficient (Ideal & real gas)

October 1st week Calculation of $w, q, \Delta U$ & ΔH

for expansion of ideal gas (isothermal and adiabatic)

October 2nd week Organic Chemistry

Alcohols (monohydric & dihydric) - nomenclature,

method of formation, chemical rx.

3rd week - Phenols (nomenclature, method of

formation & chemical properties)

Principal
GOVT COLLEGE
BEHARANGUR (Dumrauli)