



Mankar College

DEPARTMENT OF CHEMISTRY

Programme Specific and Course Outcomes

CHEMISTRY GENERAL

Programme Specific Outcome (PSO):

After successful completion of three years degree program in chemistry a student should be able to :

- PO1** - Make aware and understand laboratory practices and safety and security
- PO2** - Gain the knowledge of chemistry through theory and practical
- PO3**- Understand the various type of aliphatic, atomatic, nucleophile substitution reaction
- PO4**- Solve the reaction mechanism and predict the final product
- PO5**- Know the structure and bonding in molecules or ions

Course Outcomes (CO):

After completion of these courses students should be able to :

CC 1A

CO1. Understand the stereochemistry, configuration, reactivity and mechanism of the chemical reaction.

CO2. Know the Redox reaction and the application of Hard Soft Acid Base concept

CC 1B

CO1. Get knowledge of crystalline Solid, Gas and Liquid molecules.

CO2. Solve the numerical problems based on rate of reaction and rate constant.

CO3. Know about the chemical bonding and structure of molecules from VSEPR.

CC 1C

CO1. Understand the preparation, reactions, properties and identification of various functional groups in organic chemistry.

CO2. Know the Thermodynamics description, chemical and ionic equilibrium

SEC 1

CO1. Understand the biological importance of carbohydrates, proteins, enzymes and Nucleic acids.

CO2. Diagnostic approach by blood and urine and their compositions analysis.

CC 1D

CO1. Know the qualitative properties of solution and meaning of phase, component and degree of Freedom.

CO2. Solve the cell reaction and calculate Transport number, EMF.

CO3. Study the Gravimetric, volumetric analysis of various metal ores and chromatographic technique.

CO4. Study the impact of chemistry on the environment, atmosphere, society and development outside the scientific community.

SEC 2

CO1. Know the various pharmaceutical Drugs, their application and synthesis.

SEC 3

CO1. Know fundamental mathematics, differential calculus, mean, standard deviation, relative error, data numerical curve fitting.

CO2. Understand the BASIC computer programs for curve fitting, finding roots helps to statistical analysis.

DSE 1A

CO1. Study the electronic configuration and properties of d and f-block elements

CO2. Study the coordination chemistry and crystal field theory.

CO3. Understand the accuracy, precision and classification of error.

CO4. Know the manufacturing of various fertilizers, glass, soap, detergents, ceramics, cements by modern method and their compositions.

SEC 4

CO1. Study the different types of polymer, their properties and uses.

DSE 1B

CO1. Study the functional group approach preparation, reactions of organic compounds.

CO2. Understand the function of dyes, paints, pesticides, pigments, food additives.
