


DEPARTMENT OF CHEMISTRY

Programme Outcome (PO), Programme Specific Outcome (PSO) and Course Outcome (CO)
for the academic year 2018-19

Programme Outcome	After successful completion of three year B.Sc. degree program in Chemistry a student should be able to, PO-1. Demonstrate, solve and an understanding of major concepts in all disciplines of chemistry. PO-2. Solve the problem and also think methodically, independently and draw a logical conclusion. PO-3. Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of chemical reactions. PO-4. Create an awareness of the impact of chemistry on the environment, society, and development outside the scientific community. PO-5. Find out the green route for chemical reaction for sustainable development. PO-6. To inculcate the scientific temperament in the students and outside the scientific community. PO-7. Use modern techniques, decent equipments and Chemistry software"s
Programme Specific Outcome	PSO-1. Gain the knowledge of Chemistry through theory and practical"s. PSO-2. To explain nomenclature, stereochemistry, structures, reactivity, and mechanism of the chemical reactions. PSO-3. Identify chemical formulae and solve numerical problems. PSO-4. Use modern chemical tools, Models, Chem-draw, Charts and Equipments. PSO-5. Know structure-activity relationship. PSO-6. Understand good laboratory practices and safety PSO-7. Develop research oriented skills. PSO-8. make aware and handle the sophisticated instruments/equipments

Course Outcome	
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I Semester	<p>CO 1: Understanding the atomic structure, by the help of different theories and principles</p> <p>CO 2: Study of elements in the Periodic table and their properties</p> <p>CO 3: Study of different types of bonds and the different types of molecular structures formed by them</p> <p>CO 4: Study of fundamentals of Organic Chemistry, physical effects, structures and strengths of acids and bases</p> <p>CO 5: To understand the stereochemistry of molecules with the help of different configurations and Nomenclature of the compounds.</p> <p>CO 6: To study the functional groups and preparation and reactions of Aliphatic Hydrocarbons.</p>
II Semester	<p>CO 1: To know the thermodynamic laws and understand the concepts related to thermochemistry.</p> <p>CO 2: To study the conductance P^H of different electrolytes and their applications.</p> <p>CO 3: To study the properties of the S-block elements.</p> <p>CO 4: To study Aromatic hydrocarbons, Alkyl and aryl halides and their Preparation and reaction</p> <p>CO 5: To study Alcohols, Phenols, Aldehydes and ketones Preparation and reaction</p>
III Semester	<p>CO 1: To Study the thermodynamic of ideal solution and some of the rules related to solutions.</p> <p>CO 2: To know the degrees of freedom of number components.</p> <p>CO 3: To study the conductance of different electrolytes and Conductometric titrations and their applications.</p> <p>CO 4: To study the different types of Cells and Potentiometric titrations and their applications.</p> <p>CO 5: To study the elements belonging to p-block in the periodic table</p> <p>CO 6: To study amines, diazonium salts, aminoacids, peptides and proteins. Their preparation and reactions</p> <p>CO 7: To study the classification, properties of carbohydrates</p>
IV Semester	<p>CO 1: To study the elements belonging to d block and their properties.</p> <p>CO 2: To study Valence bond theory, structure and stereochemistry of coordination compounds.</p> <p>CO 3: To study the kinetic theory of gases, Maxwell Boltzmann distribution laws of molecular velocities and molecular energies</p> <p>CO 4: To study surface tension, viscosity. Forms of solids, laws of crystallography, theories of reaction rates.</p>
V Semester	<p>CO 1: To study Inorganic polymers, classification, synthesis and application.</p> <p>CO 2: To study different chromatographic techniques. Corrosion theories, reactions, prevention.</p> <p>CO 3: To Study different spectroscopic techniques. Study of Organometallic and organosulphur compounds their synthesis and application. And rearrangement reactions.</p>

	<p>CO 4: To study osmosis and osmotic pressure, lowering of vapour pressure, elevation in boiling point and depression in freezing point.</p> <p>CO 5: To study adsorption of gases by solids, derivation of Freundlich adsorption isotherm.</p> <p>CO 6: To study essential and trace elements in biological system.</p> <p>CO 7: To study classification of fertilizers and their uses, advantages and disadvantages of organic reagents.</p> <p>CO 8: To study reactive methylene compounds, carbohydrates, oils, fats, soaps & detergents.</p> <p>CO 9: To study the classification synthesis and uses of synthetic dyes and synthetic polymers</p> <p>CO 10: To study specific, molar and equivalent conductance. Application of conductance measurements. Study of Debye-Huckel-Onsager equation. Clausius - Mossotti equation and its importance</p>
VI Semester	<p>CO 1: To study evaluation of analytical data. Principles of gravimetric analysis. Analysis of water by different techniques.</p> <p>CO 2: To study the classification and synthesis of alkaloids, terpenes, amino acids, peptides, proteins enzymes, hormones, vitamins.</p> <p>CO 3: To study molecular spectroscopy. Rotational, Vibrational and Raman spectrum. Also the study of radiation chemistry.</p> <p>CO 4: To study the importance of cement, ceramics, refractories and glass. Paints, pigments and varnishes.</p> <p>CO 5: To study the preparation and application of different reagents in organic synthesis. Chemistry in day today life, green synthesis of adipic acid, urethane and ibuprofen.</p> <p>CO 6: To study protecting and deprotecting groups. To understand the definition of drug. Synthesis and uses of aspirin, paracetamol etc.</p> <p>CO 7: To study electrolytic and galvanic cells. Nernst equation for electrode potential. Primary cell, secondary cell and Nickel-cadmium cell</p>


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