Program Outcomes

B.Sc. Part-I

Chemistry (Semester-I)

Course Outcome- B.Sc. I Semester I	
Course Outcomes	After completion of these courses' students should be able to;
01 - Inorganic chemistry	**CO-1** Understands the concept of Heisenberg's uncertainty principle and the de Broglie equation. **CO-2** to comprehend the additional stability principle and quantum numbers. **CO-3** to comprehend the elements' periodic characteristics as listed in the periodic table. **CO-4** To describe the MOT and VBT of various molecules. **CO-5** To go over the characteristics of alkaline and alkali earth metals. **CO-6** Describe the diagonal relationship and qualities of the p-block element. **CO-7** Understand the volumetric analysis of acid-base, the chemistry of Nobel gas, and hydrogen bonding.
02-Organic Chemistry	**CO-1** To comprehend the idea of organic reaction process and electrical displacement. **CO-2** is familiar with the fundamental ideas of chirality and isomerism. **CO-3** To explain the use and preparation of hydrocarbons. **CO-4** To talk about how benzene is made and its chemical characteristics. **CO-5** Describe the aromaticity of aromatic compounds and Huckel's rule.
03 Practical's Inorganic Chemistry	**Course outcomes.** 1) Weighing the standard solution and diluting the 0.1 M solution to create the 0.001 M solution. 2) Calculating the amount of sodium hydrogen carbonate and sodium carbonate in the combination. 3) Using n-phenyl anthranilic acid as an internal indicator, estimate Fe (II) using dichromate. 4) Using NaOH to determine the commercial vinegar acetic acid 5) Titrating oxalic acid with KMnO4 to estimate its concentration 6) Zinc measurement using complexometric titration and EDTA

Organic Chemistry	1. The identification of up to two additional elements (N, S, Cl, Br, and I) in organic molecules. 2. The synthesis of a single derivative and systematic qualitative organic analysis of organic compounds with mono functional groups (-COOH, phenolic, aldehydic, ketonic, amide, nitro, amines). 3. Chromatography-based mixture separation: Determine each case's Rf value (combined two substances to be delivered).

Course Outcomes
B. Sc. Chemistry
SEMESTER –II

Course	Course Outcomes
ORGANIC CHEMISTRY	**CO-1** Talk about in aromatic compounds that are nucleophilic and electrophilic. **CO-2** The distinction between groups that are activating and those that are deactivating. **CO-3** Learn the different forms of carbohydrates' production. **CO-4** Learn about the chemistry of acids, aromatic ketones, and formaldehyde. **CO-5** Learn about the chemistry of nitro compounds and aromatic sulfuric acid in **CO-6** Determine the acid value, iodine content, and saponification of acids and fats.
PHYSICAL CHEMISTRY	**CO-1** To use gas laws in a variety of real-world scenarios. **CO-2** To clarify how ideal and real gas behave. **CO-3** To distinguish between vapor and gaseous state. **CO-4** To elucidate the theory of gases' kinetics. **CO-5** Describe the characteristics of liquids. **CO-6** To explain the prerequisites needed for gas liquefaction. **CO-7** To write the equilibrium constant expressions. **CO-8** To learn about equilibrium rules. **CO-9** To comprehend the many kinds of colloids and their uses

Practical	**COURSE OUTCOMES: -**
	CO-1 Crystallization-based purification of an impure organic molecule **CO-2** Production, Recrystallization, Melting Point Calculation, and Quantitative Yield Calculation of Organic Compounds. **CO-3** Thermochemistry, Equilibrium, and Liquid State-Based Physical Chemistry Experiments