

Syllabus for entrance examination for admission to Ph.D. (Tech.) Perfumery and Flavour Technology course

General Chemistry

Basic chemistry concepts: Atomic structure, Chemical bonding, Oxidation number, acids and bases.

Chemical equilibria, Chemical thermodynamics, Chemical kinetics, Catalysis & surface phenomenon.

Organic Chemistry

Functional groups and their characteristic reactions, Addition, Substitution, Elimination reactions.

Name reactions: Aldol condensation, Rosenmund reduction, Cannizzaro's reaction, Perkin reaction, Knoevenagel condensation, etc.

Fragrances

Synthesis of aroma chemicals, Commercial names of aroma chemicals, classification of perfumes and flavors according to characteristic group present, current trends in fragrances, study of classical fragrances.

Application in household products, incense, soaps, etc.;

Flavors

Biogenesis of flavors, reaction flavors, OFF-flavors, flavour potentiators, flavour enhancers, isolation of food flavors, flavor raw materials, taste threshold, flavor formulation, quality control in flavor industry.

Essential oils

Chemistry of natural products, biogenesis of terpenoids, processing, purification and isolation of essential oils, analysis and quality control.

Aptitude

Qualitative and Quantitative aptitude.