

Syllabus for Entrance Examination – M. Tech. in Perfumery and Flavour Technology

2024-25

Organic Chemistry

Basic Chemistry - mole concept, Chemical bonding, Theory of acids and bases, Theory of oxidation number, concentration of solution

Functional Groups in Organic Chemistry

Basic Reactions in Organic Chemistry – Halogenation, Dehydration, Dehydrohalogenation, Condensation reaction, Free radical reaction, Oxidation, Reduction, Catalytic reduction

Substitution Reactions – Nucleophilic substitution reaction, Electrophilic aromatic substitution reaction, Nucleophilic aromatic substitution reaction

Addition Reactions – Nucleophilic addition reaction, electrophilic addition reaction

Name Reactions in Organic Chemistry - Aldol condensation, Cannizzaro reaction, Wurtz synthesis, Grignard reaction, Williamson synthesis

Flavour Science

Food reactions - Maillard reaction, development of flavour during food processing i.e. process flavour, off flavours

Analytical methods for testing of flavouring and fragrance compounds – Physical analysis

(Refractive index, specific gravity, viscosity etc), chemical analysis (Saponification value, acid content etc) and instrumental analysis (Gas chromatography, Spectroscopy, etc.)

Essential Oils

Essential oils, natural perfumery raw material

General definitions of Oleoresin, tinctures and extracts

Chemical Engineering

Unit Operations, General separation techniques, purification methods, distillation, extraction, etc.

