

# Syllabus for Entrance Examination - M.Sc. (Textile Chemistry)

2024-25

## Physics:

Measurement of temperature; Diffraction; Crystal structure; Ultrasonics; Optical fibres; Interaction of radiation with matter: Beer-Lambert's Law

## Chemistry:

States of matter; Catalysis; Application of electrochemistry; Aromaticity; Aromatic compounds, Halo aromatic compounds; Nitroaromatic; Aromatic sulphonic acids; Aromatic amines; Oxidation and reduction properties; and dimer, trimer fatty acids; Polymerized fatty acids; Nature of the surfactants: Plant & processes for the production important anionics; nonionics; cationics; amphoteric surfactants; supercritical fluid extraction; Chemistry of azo dyes; Basic dyes; disperse dyes; vat, sulphur reactive dyes Chemistry of elements; Chemical bonding; enzymes their production and applications

## Polymers:

Natural polymers; Fiber Science: Evaluation of raw materials and reactants for synthesis and manufacturing of polymers; Techniques of polymerization; Configuration and confirmation and structure properties of polymers; Molecular mass heterogeneity and structure properties; Addition and condensation polymerization

## Fibres:

Fibre forming polymers and their properties, Natural fibers and their properties, Synthetic Fibres, their synthesis and properties, Identification of fibers.