

Syllabus for Entrance Examination - M. Tech. in Fibres and Textile Processing

2024-25

Polymers and Fibres: Fibre forming polymers and their properties, Primary and secondary properties of fibres, Classification of fibres, Natural fibres and their properties, Synthetic Fibres, their synthesis and properties, Identification of fibres.

Pretreatments: Desizing, scouring and bleaching of natural and synthetic fibres/fabrics, Oxidative and reductive bleaching agents, Hypochlorite and Hydrogen peroxide bleaching, Mercerization, Ecofriendly pretreatment processes, Continuous pretreatment processes, Pretreatment norms and their evaluation.

Coloration: Classification of colorants, Dyestuffs for natural and synthetic fibre/fabric and their application processes, Natural dyes and their application, Various dyeing machineries, Latest dyeing machines and dyeing techniques, Computer Colour Matching application, Basics of Printing of textiles, Ingredients of print paste, Styles of printing, Methods of printing, Fixation of prints, Latest printing machines and printing techniques.

Finishing: Finishing of textiles, Mechanical finishes, Chemical finishes, Speciality/Functional finishes, Application processes of finishing agents and their testing.

Testing: Physical/Mechanical testing of fibre/fabric, Wet fastness properties of dyed and printed textiles.

Technical textiles: Nonwoven textiles, Application of Textiles in 12 sectors of technical textiles such as transport, defense, construction, medical, agriculture, etc.

Environmental aspects of Textile Processing: Discharges from textile processing industry, its characteristics and treatment, Banned dyes, Red listed chemicals and their Ecofriendly substitutes.