

Savitribai Phule Pune University

Department of Technology

MTech (Chemical & Biotechnology)

ENTRANCE EXAM SYLLABUS (2026)

SECTION A: Numerical Analysis Aptitude & English Skills Assessment – 20 Marks

- Pattern Recognition
- Visual Sequences & Series
- Simple Mathematics
- Odd Image / Element Out
- Visual Memory and Details
- General English
- English Grammar

SECTION B: Subject Knowledge of Mechanical Engineering and Materials – 80 Marks

- **Mechanical Engineering:** Engineering Mechanics, Theory of Mechanics, Vibrations, Mechanics of Materials, Design of Machines, Fluid Mechanics, Heat Transfer, Thermodynamics, Computer Integrated Manufacturing, Engineering Materials, Production Planning and Control, Operational Research, Numerical Methods, Probability and Statistics, Calculus and Differential Equations
- **Materials Technology:** Mineral Processing and Extractive Metallurgy, Continuous Casting, Physical Metallurgy, Phase Transformation, Solid State Transformation, Mechanical Metallurgy, Strengthening Mechanisms, Fatigue, Metal Joining, Powder Metallurgy, Non-destructive Testing, Mining Methods, Systems Engineering, Microbiology, Immunology, Genetics, Cell Biology, Molecular Biology, Transport Processes, Bio-reaction Engineering, Downstream Operations, Microbial Biotechnology, Recombinant DNA Technology, Analytical Instruments, Computational Tools