

## UPSEE LEET (Now Merged with CUET/UPCET) Syllabus for B.Tech Lateral Entry

UPSEE LEET was previously conducted for diploma/B.Sc. holders seeking direct admission into the 2nd year of B.Tech programs in Uttar Pradesh engineering colleges. Now, it has been merged with CUET/UPCET, but the exam pattern and syllabus remain similar, focusing on Mathematics, Science, and Engineering subjects.

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### Section-Wise Syllabus for UPSEE LEET

The exam consists of three major sections:

- Mathematics (50 Marks)
  - Physics & Chemistry (50 Marks)
  - Engineering Subjects (100 Marks)
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### Section 1: Mathematics (50 Marks)

This section tests quantitative ability and mathematical reasoning.

#### Mathematics Topics

- Algebra – Matrices, Determinants, Complex Numbers, Quadratic Equations
  - Trigonometry – Identities, Heights & Distances, Inverse Trigonometric Functions
  - Differential Calculus – Limits, Derivatives, Applications of Derivatives
  - Integral Calculus – Definite & Indefinite Integrals, Applications
  - Probability & Statistics – Mean, Variance, Standard Deviation, Probability Theorems
  - Coordinate Geometry – Straight Lines, Circles, Parabolas, Ellipses
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### Section 2: Physics & Chemistry (50 Marks)

This section evaluates scientific principles required for engineering studies.

#### Physics Topics

- Kinematics & Laws of Motion – Newton's Laws, Work & Energy
- Heat & Thermodynamics – Laws of Thermodynamics, Heat Transfer
- Electricity & Magnetism – Ohm's Law, Kirchhoff's Laws, Electromagnetic Induction
- Modern Physics – Dual Nature of Matter, Semiconductor Physics

#### Chemistry Topics

- ✔ Atomic Structure & Periodic Table
  - ✔ Chemical Bonding & Molecular Structure
  - ✔ Organic Chemistry – Hydrocarbons, Alcohols, Ethers, Carbonyl Compounds
  - ✔ Inorganic Chemistry – Coordination Compounds, Electrochemistry
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### Section 3: Engineering Subjects (100 Marks)

This section is based on diploma-level engineering subjects, varying based on specialization.

#### Civil Engineering

- ✔ Strength of Materials – Stress & Strain, Bending Moment & Shear Force
- ✔ Surveying – Leveling, Contouring, Linear & Angular Measurement
- ✔ Fluid Mechanics – Fluid Properties, Flow through Pipes
- ✔ Construction Materials & Building Design

#### Mechanical Engineering

- ✔ Thermodynamics – Laws of Thermodynamics, Heat Engines
- ✔ Strength of Materials – Stress & Strain, Bending Moment, Torsion
- ✔ Manufacturing Processes – Welding, Casting, Machining
- ✔ Fluid Mechanics – Bernoulli's Theorem, Flow through Pipes

#### Electrical & Electronics Engineering

- ✔ Circuit Theory – AC & DC Circuits, Network Theorems
- ✔ Electrical Machines – Transformers, Induction Motors, DC Machines
- ✔ Power Systems – Transmission & Distribution, Power Generation
- ✔ Digital Electronics – Logic Gates, Boolean Algebra, Flip-Flops

#### Computer Science & IT

- ✔ Programming – C, C++, Java Basics
  - ✔ Data Structures – Arrays, Linked Lists, Stacks & Queues
  - ✔ Computer Networks – OSI Model, TCP/IP Basics
  - ✔ Operating Systems – Basics, Process Management
  - ✔ Database Management – SQL, Normalization
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### UPSEE LEET (UPCET) Exam Pattern


Subject	Marks
Mathematics	50 Marks
Physics & Chemistry	50 Marks
Engineering Subjects	100 Marks
Total	200 Marks

 Exam Duration: 2 Hours

 Marking Scheme: +4 for Correct Answer, -1 for Incorrect Answer

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#### Preparation Tips for UPSEE LEET (UPCET)

 **Revise Diploma Subjects:** Focus on core engineering subjects from your diploma syllabus.

 **Strengthen Mathematics & Science Concepts:** This section is scoring, so regular practice is essential.

 **Solve Previous Year Papers:** Helps understand the exam pattern and question types.

 **Attempt Mock Tests:** Improves time management and boosts confidence.