

## West Bengal JELET Syllabus for B.Tech Lateral Entry

**West Bengal JELET (Joint Entrance for Lateral Entry)** is conducted by **WBJEEB (West Bengal Joint Entrance Examinations Board)** for **Diploma and B.Sc. holders** seeking **direct admission into the second year of B.Tech programs** in West Bengal.

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### Section-Wise Syllabus for West Bengal JELET

#### Section 1: Mathematics (20 Marks for Diploma, 100 Marks for B.Sc.)

Mathematics plays a crucial role in engineering studies. The key topics include:

- Algebra – Determinants, Matrices, Complex Numbers
  - Calculus – Limits, Continuity, Differentiation, Integration
  - Differential Equations – First and Second Order Equations
  - Probability & Statistics – Mean, Median, Variance, Standard Deviation
  - Vector Algebra – Dot Product, Cross Product, Gradient, Curl
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#### Section 2: Engineering Mechanics (30 Marks for Diploma Candidates)

This section tests fundamental physics and mechanics concepts applicable in engineering.






- Newton's Laws of Motion
  - Work, Energy & Power
  - Kinematics & Dynamics
  - Laws of Friction
  - Stress & Strain
  - Rotational Motion
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#### Section 3: Electrical & Electronics Engineering (30 Marks for Diploma Candidates)

This section includes basic electrical and electronics concepts:






- Ohm's Law & Kirchhoff's Laws
  - AC/DC Circuits
  - Transformers & Induction Motors
  - Semiconductor Physics – Diodes, Transistors
  - Digital Electronics – Logic Gates, Flip-Flops
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 **Section 4: Computer Applications (for Diploma in Computer Science Candidates - 30 Marks)**

-  Basics of Programming (C, C++)
  -  Data Structures & Algorithms
  -  Operating Systems
  -  Database Management Systems (DBMS)
  -  Computer Networks
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 **Section 5: B.Sc. Candidates – Physical Science (100 Marks)**

This section is for **B.Sc. Mathematics graduates** applying for lateral entry. Topics include:

-  Mechanics – Motion, Gravitation, Fluid Mechanics
  -  Electricity & Magnetism – Electrostatics, Electromagnetic Induction
  -  Optics – Reflection, Refraction, Lenses
  -  Modern Physics – Quantum Mechanics, Atomic Structure
  -  Mathematics – Linear Algebra, Differential Equations
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 **Exam Pattern for WB JELET**


Section	Subjects	Diploma Marks	B.Sc. Marks
Section 1	Mathematics	20 Marks	100 Marks
Section 2	Engineering Mechanics	30 Marks	Not Applicable
Section 3	Electrical & Electronics	30 Marks	Not Applicable
Section 4	Computer Applications	30 Marks	Not Applicable
Section 5	Physical Science (for B.Sc. students)	Not Applicable	100 Marks
<b>Total</b>	<b>100 Questions</b>	<b>100 Marks</b>	<b>100 Marks</b>


 **Exam Duration:** 2 Hours

 **Marking Scheme:** +1 for Correct Answer, -0.25 for Wrong Answer


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 **Preparation Tips for WB JELET B.Tech Aspirants**

 **Revise Diploma Subjects:** Focus on **engineering mechanics, electrical, and computer science** topics based on your background.

 **Strengthen Mathematics:** Whether you are a **Diploma** or **B.Sc.** student, **mathematics is crucial**. Practice calculus, algebra, and probability.

 **Solve Past Papers:** Attempt **previous WB JELET question papers** to get familiar with the pattern and improve speed.

 **Stay Updated on Electronics & Computing:** If you're from a **CS/Electronics** background, brush up on **digital logic, microprocessors, and programming**.

 **Mock Tests & Time Management:** Take **mock exams** to practice under timed conditions.