

# IB Junior Intelligence Officer (JIO) Syllabus 2025

The IB JIO Exam 2025 consists of two major parts:

1. General Mental Ability (Reasoning + Quantitative Aptitude)
2. Essential Subjects (based on candidate's qualification: Electronics, Computer Science, Physics, or Mathematics)

## 1. General Mental Ability Syllabus 2025

<b>Subject</b>	<b>Topics Covered</b>
Reasoning Ability	Alphanumeric Series Direction & Distance Test Blood Relation Analogy Data Sufficiency Coding-Decoding Cubes & Dice Arithmetic Reasoning Decision Making Clock Reasoning Calendar Reasoning Number Series Number Arrangement Embedded Figures Analytical Reasoning Logical Reasoning Syllogism Completion of Patterns Classifications Order & Ranking Word Formation Arrangement Pattern Mixed Series

Quantitative Aptitude	Averages Mixtures & Alligation Percentages Profit & Loss Time & Work Arithmetical Operations Whole Numbers Time, Speed & Distance Simple Interest Compound Interest Simplification Discount Number System HCF & LCM
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## 2. Electronics Syllabus 2025

Subject	Topics Covered
Digital Electronics	NOT Gate AND Gate OR Gate NAND Gate NOR Gate Ex-OR Gate Ex-NOR Gate Logic Gates Karnaugh Maps ROM RAM Boolean Functions Binary Operations Number Systems Programmable Logic Devices Adders Subtractors Comparators

Analog Electronics & Electrical Engineering	Capacitance & Factors Affecting Current & its Unit Inductance Energy & Units Resistance Factors Voltage & Units Current Transformer Megger Tank Circuit Signal Generator Star & Delta Connection Earth Fault Detection Cathode Ray Oscilloscope Power Plants (Thermal, Solar, Economics of Power Generation) Electric Welding Arc Welding Resistance Welding
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### 3. Computer Science Syllabus 2025

<b>Subject</b>	<b>Topics Covered</b>
Computer Fundamentals & Software	Generations of Computer Types of Computer Components of Computer Computer Memory Shortcut Keys Storage Devices Input/Output Devices Windows Versions Computer Virus Software & Hardware Questions
Networking & Internet	Computer Networks TCP/UDP, Sockets, Congestion Control Network Devices Network Topology OSI Model Internet Basics

Microsoft Office & Aptitude	MS Windows MS Word MS Excel MS Office Tools Computer Aptitude
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#### 4. Physics Syllabus 2025

Subject	Topics Covered
General Physics	Measurements Laws of Motion Speed & Velocity Mechanics Circular Motion Energy & Momentum Gravity Fluid Mechanics Oscillations & Waves
Thermal Physics & Thermodynamics	Heat Transfer Thermodynamics Thermal Properties
Electricity & Magnetism	Circuit Elements DC Circuits Magnetism Magnetic Effects of Current Electromagnetic Induction
Optics & Modern Physics	Wave Properties Reflection & Refraction Ray Optics Physical Optics Quantum Phenomenon Atomic Physics Nuclear & Particle Physics Relativity

#### 5. Mathematics Syllabus 2025

Subject	Topics Covered
Algebra & Geometry	Linear Algebra Arithmetic Progressions Circles Lines Triangles Three Dimensional Geometry Sequences & Series Matrices Determinants Sets Relations & Functions Linear Inequations Complex Numbers
Calculus	Limits & Continuity Differential Calculus Methods of Differentiation Applications of Derivatives Solution of Differential Equations Indefinite Integrals
Probability & Statistics	Elementary Statistics Probability Binomial Theorem Permutations & Combinations
Other Key Topics	Averages Comparison of Quantity Vector Algebra