



GENIUS CEREBRUM
THE INTELLECTUALS

GENIUS CEREBRUM
INTERNATIONAL
MATHEMATICS
OLYMPIAD
(GIMO)

SYLLABUS
HANDBOOK



GC, USA



Level Buds (Pre-KG, KG1 & KG2) Syllabus

Total Marks: 100

General section: 20 Questions (3 Marks each)

Genius Section: 10 Questions (4 Marks each)

<i>Unit</i>	<i>Topics</i>
<i>1</i>	<i>Numbers</i> <ul style="list-style-type: none"> ➤ <i>Identifying the numbers up to 50</i> ➤ <i>Number Patterns</i> ➤ <i>Counting the objects</i>
<i>2</i>	<i>Operations</i> <ul style="list-style-type: none"> ➤ <i>Simple Addition</i> ➤ <i>Simple Subtraction</i> ➤ <i>Simple Comparisons</i>
<i>3</i>	<i>Shapes</i> <ul style="list-style-type: none"> ➤ <i>Identifying shapes</i> ➤ <i>Match with real things</i>
<i>4</i>	<i>Spatial Awareness</i> <ul style="list-style-type: none"> ➤ <i>Identifying relative positions like Right, Left, Top, Bottom etc.,</i>
<i>5</i>	<i>Sorting</i> <ul style="list-style-type: none"> ➤ <i>By shapes</i> ➤ <i>By Colours</i> ➤ <i>By Size</i>
<i>6</i>	<i>Time</i> <ul style="list-style-type: none"> ➤ <i>Basic time concepts like Morning and Days of the week Etc.</i>
<i>7</i>	<i>General Aptitude Questions. (Basic Mathematical & Analytical Questions)</i>



Level 1 (Grade 1 & 2) Syllabus

Total Marks: 100

General section: 40 Questions (1 Mark each)

Genius Section: 20 Questions (3 Marks each)

<i>Unit</i>	<i>Topics</i>
<i>1</i>	<i>Numbers</i> <ul style="list-style-type: none"> ➤ <i>Forward and Backward Counting</i> ➤ <i>Place values up to thousands</i> ➤ <i>Number Patterns</i> ➤ <i>Odd and Even</i>
<i>2</i>	<i>Operations</i> <ul style="list-style-type: none"> ➤ <i>Addition</i> ➤ <i>Subtraction</i> ➤ <i>Comparison</i> ➤ <i>Number lines</i>
<i>3</i>	<i>Geometrical Shapes</i> <ul style="list-style-type: none"> ➤ <i>Identifying shapes</i> ➤ <i>Characteristics of shapes</i> ➤ <i>Match with real things</i>
<i>4</i>	<i>Spatial Reasoning & Understanding</i> <ul style="list-style-type: none"> ➤ <i>Patterns</i> ➤ <i>Orientation</i>
<i>5</i>	<i>Mathematical Logic & Reasoning</i>
<i>6</i>	<i>Measurement</i>
<i>7</i>	<i>Money</i>
<i>8</i>	<i>Time</i>
<i>9</i>	<i>General Aptitude</i>



Level 2 (Grade 3,4 & 5) Syllabus

Total Marks: 100

General section: 40 Questions (1 Mark each)

Genius Section: 20 Questions (3 Marks each)

<i>Unit</i>	<i>Topics</i>
<i>1</i>	<i>Numbers and operations</i> <ul style="list-style-type: none"> ➤ <i>Number system</i> ➤ <i>Addition, subtraction, Multiplication, division</i> ➤ <i>Mixed Operations</i>
<i>2</i>	<i>Basic fractions</i> <ul style="list-style-type: none"> ➤ <i>Fraction Comparison</i> ➤ <i>Simple operations</i> ➤ <i>Basic Numerical problems</i>
<i>3</i>	<i>Geometrical Shapes & Spatial reasoning</i> <ul style="list-style-type: none"> ➤ <i>Identifying shapes and patterns</i> ➤ <i>Characteristics of shapes</i> ➤ <i>Orientation of shapes</i>
<i>4</i>	<i>Perimeter and Area of basic shapes</i>
<i>5</i>	<i>Mathematical Logic & Reasoning</i>
<i>6</i>	<i>Basic Data Interpretation</i>
<i>7</i>	<i>Measurements</i>
<i>8</i>	<i>Money</i>
<i>9</i>	<i>Time</i>
<i>10</i>	<i>Genius Section</i> <ul style="list-style-type: none"> ➤ <i>Higher level difficult questions based on any of the above topics</i>
<i>11</i>	<i>General Aptitude</i>

**Syllabus of Level 1 is also included as part of Level 2 Syllabus*



Level 3 (Grade 6,7& 8) Syllabus

Total Marks: 100

General section: 40 Questions (1 Mark each)

Genius Section: 20 Questions (3 Marks each)

<i>Unit</i>	<i>Topics</i>
<i>1</i>	<i>Numbers and operations</i> <ul style="list-style-type: none"> ➤ <i>Prime numbers & factorisation</i> ➤ <i>Composite numbers</i> ➤ <i>LCM and HCF</i> ➤ <i>Square roots and Cube roots</i>
<i>2</i>	<i>Fractions and decimals</i> <ul style="list-style-type: none"> ➤ <i>Mixed fractions</i> ➤ <i>Decimals numbers and applications</i>
<i>3</i>	<i>Ratios, Proportions and Exponents</i> <ul style="list-style-type: none"> ➤ <i>Equivalent ratios & Fractions</i> ➤ <i>Proportions</i> ➤ <i>Operations on Exponents including negative exponents</i>
<i>4</i>	<i>Algebra</i> <ul style="list-style-type: none"> ➤ <i>Linear equations</i> ➤ <i>Application of algebraic principles</i>
<i>5</i>	<i>Percentages, Simple interest, Compound interest</i>
<i>6</i>	<i>Data Interpretation</i> <ul style="list-style-type: none"> ➤ <i>Graphs</i> ➤ <i>Pie Charts</i> ➤ <i>Data Patterns</i>
<i>7</i>	<i>Reasoning and Aptitude</i> <ul style="list-style-type: none"> ➤ <i>Distance</i> ➤ <i>Time</i> ➤ <i>Work</i> ➤ <i>Ratios</i>
<i>8</i>	<i>Geometry and Measurement</i> <ul style="list-style-type: none"> ➤ <i>Triangle, Rectangle, Square</i>
<i>9</i>	<i>Genius Section</i> <ul style="list-style-type: none"> ➤ <i>Higher level difficult questions based on any of the above topics</i>

**Syllabus of Level 2 is also included as part of Level 3 Syllabus*



Level 4 (Grade 9 & Above) Syllabus

Total Marks: 100

General section: 40 Questions (1 Mark each)

Genius Section: 20 Questions (3 Marks each)

<i>Unit</i>	<i>Topics</i>
<i>1</i>	<i>Number System</i> <ul style="list-style-type: none"> ➤ <i>Real Number</i> ➤ <i>Rational Numbers</i> ➤ <i>Irrational Numbers</i> ➤ <i>Complex Numbers</i>
<i>2</i>	<i>Statistics and Probability</i>
<i>3</i>	<i>Ratios, Proportions, Fractions and Exponents</i> <ul style="list-style-type: none"> ➤ <i>Equivalent ratios</i> ➤ <i>Proportions</i> ➤ <i>Unit Fractions</i> ➤ <i>Mixed Fraction</i> ➤ <i>Operations on Exponents</i>
<i>4</i>	<i>Algebra</i> <ul style="list-style-type: none"> ➤ <i>Linear equations</i> ➤ <i>Application of algebraic principles</i> ➤ <i>Quadratic Equations</i>
<i>5</i>	<i>Percentages, Simple interest, Compound interest</i>
<i>6</i>	<i>Data Interpretation</i> <ul style="list-style-type: none"> ➤ <i>Graphs</i> ➤ <i>Pie Charts</i> ➤ <i>Data Patterns</i>
<i>7</i>	<i>Reasoning and Aptitude</i> <ul style="list-style-type: none"> ➤ <i>Distance</i> ➤ <i>Time</i> ➤ <i>Work</i> ➤ <i>Ratios</i>
<i>8</i>	<i>Geometry and Mensuration</i> <ul style="list-style-type: none"> ➤ <i>Coordinate geometry</i> ➤ <i>Interior and exterior angle</i> ➤ <i>Solid Geometry</i> ➤ <i>Mensuration</i>
<i>9</i>	<i>Basic Logarithmic Functions</i>
<i>10</i>	<i>Trigonometry</i>

**Syllabus of Level 3 is also included as part of Level 4 Syllabus*