ZEST 2026 · SYLLABUS

Class 8th

Science · Mathematics · Mental Ability

ZEST
Zigyan Entrance cum Scholarship Test

PART 1
Before 15 November
Half Syllabus Test
25 chapters · 5 subject areas

PART 2
After 15 November
Full Syllabus Test
52 chapters · 5 subject areas

PART 1 HALF SYLLABUS TEST
Tests before 15 November

PHYSICS
3 chapters

01 Electricity: Magnetic and Heating Effects — NCERT Ch. 4
Does an Electric Current Have a Magnetic Effect? · Electromagnets · Does a Current Carrying Wire Get Hot? · How Does a Battery Generate Electricity? · Voltaic Cell · Dry Cells · Rechargeable Batteries

02 Exploring Forces — NCERT Ch. 5
What Is a Force? · What Can a Force Do to the Objects on Which It Is Applied? · Are Forces an Interaction Between Two or More Objects? · What Are the Different Types of Forces? · Contact Forces · Non-contact Forces · Weight and Its Measurement · Floating and Sinking

03 Pressure, Winds, Storms, and Cyclones — NCERT Ch. 6
Pressure · Pressure Exerted by Air · Formation of Wind · High-Speed Winds Result in Lowering of Air Pressure · Storms, Thunderstorms, and Lightning · Cyclone

CHEMISTRY
2 chapters

01 Particulate Nature of Matter — NCERT Ch. 7
What Is Matter Composed of? · What Decides Different States of Matter? · Solid State · Liquid State · Gaseous State · How Does the Interparticle Spacing Differ in the Three States of Matter? · How Particles Move in Different States of Matter?

02 Nature of Matter: Elements, Compounds, and Mixtures — NCERT Ch. 8
What Are Mixtures? · Is Air a Mixture? · Types of Mixtures · What Are Pure Substances? · What Are the Types of Pure Substances? · Elements · Compounds · How Do We Use Elements, Compounds, and Mixtures? · What Are Minerals?

BIOLOGY
2 chapters

01 The Invisible Living World: Beyond Our Naked Eye — NCERT Ch. 2
What Is a Cell? · Variation in Shape and Structure of Cells · What Are the Levels of Organisation in the Body of a Living Organism? · What Are Microorganisms? · How Are We Connected to Microbes? · Key Players in Cleaning the Environment · Microorganisms and Food · Amazing Microalgae: Tiny Helpers in Water · Why Is Cell Considered to Be a Basic Unit of Life?

02 Health: The Ultimate Treasure — NCERT Ch. 3
Health: Is It More Than Not Falling Sick? · How Can We Stay Healthy? · Maintain a Healthy Lifestyle · Keep the Environment Clean · How Do We Know That We Are Unwell? · Diseases: What Are the Causes and Types? · How Are Communicable Diseases Caused and Spread? · How Are Non-communicable Diseases Caused? · How to Prevent and Control Diseases? · Treatment of Diseases

MATHEMATICS
8 chapters

01 Squares and Square Roots — Ganita Prakash I · Ch. 1
Square Numbers · Patterns and Properties of Perfect Squares · Perfect Squares and Odd Numbers · Perfect Squares and Triangular Numbers · Square Roots

02 **Cubes and Cubes Roots** — Ganita Prakash I · Ch. 1
Cubic Numbers · Taxicab Numbers · Perfect Cubes and Consecutive Odd Numbers · Cube Roots · Successive Differences

03 **Algebraic Expressions and Identities** — Ganita Prakash I · Ch. 6
Some Properties of Multiplication · Increments in Products · Fast Multiplications Using the Distributive Property · Special Cases of the Distributive Property · Square of the Sum/Difference of Two Numbers · Investigating Patterns · Mind the Mistake, Mend the Mistake · This Way or That Way, All Ways Lead to the Bay

04 **Exponents and Powers** — Ganita Prakash I · Ch. 2
Experiencing the Power Play · An Impossible Venture! · Exponential Notation and Operations · The Stones that Shine · Magical Pond · How Many Combinations · The Other Side of Powers · Power Lines · Powers of 10 · Scientific Notation · Did You Ever Wonder? · Linear Growth vs. Exponential Growth · Getting a Sense for Large Numbers

05 **Direct and Inverse Proportion** — Ganita Prakash I · Ch. 7
Observing Similarity in Change · Ratios · Ratios in their Simplest Form · Problem Solving with Proportional Reasoning · Trairasika - The Rule of Three · Sharing, but Not Equally! · Unit Conversions · Proportionality - A Quick Recap · Ratios in Maps · Ratios with More than 2 Terms · Dividing a Whole in a Given Ratio · A Slice of the Pie · Inverse Proportions

06 **Number Play** — Ganita Prakash I · Ch. 5
Is This a Multiple Of? · Sum of Consecutive Numbers · Breaking Even · Pairs to Make Fours · Always, Sometimes, or Never · What Remains? · Checking Divisibility Quickly · A Shortcut for Divisibility by 9 · A Shortcut for Divisibility by 3 · A Shortcut for Divisibility by 11 · More on Divisibility Shortcuts · Digital Roots · Digits in Disguise

07 **Rational Numbers** — NCERT earlier ed. · Ch. 1
Properties of Rational Numbers · Closure · Commutativity · Associativity · The Role of Zero (0) · The Role of 1 · Distributivity of Multiplication over Addition for Rational Numbers

08 **Understanding Quadrilaterals** — Ganita Prakash I · Ch. 4
Rectangles and Squares · A Carpenter's Problem · The Process of Finding Properties · A Special Rectangle · Properties of a Square · Angles in a Quadrilateral · More Quadrilaterals with Parallel Opposite Sides · Quadrilaterals with Equal Sidelengths · Playing with Quadrilaterals · Geoboard Activity · Joining Triangles · Kite and Trapezium

MENTAL ABILITY

10 chapters

01 **Analogy**
Number analogy · Letter analogy · Word analogy · Figure analogy

02 **Classification**
Odd word out · Odd number out · Odd letter group out · Odd pair out

03 **Number Series**
Add or subtract pattern · Multiply or divide pattern · Square and cube series · Prime number series · Alternating two-step series · Wrong number in a series

04 **Alphabet Series**
Letters with a fixed gap · Forward and backward series · Alternating letter patterns · Letter-group series · Missing term in a series

05 **Coding–Decoding**
Letter shifting code · Number code for letters · Symbol code · Word-to-word code · Opposite letter code · Decoding a given code

06 **Blood Relations**
Direct family relations · Pointing to a person · Coded relations · Family tree puzzles · Generation-based relations

07 **Direction Sense**
Four main directions · Left and right turns · Distance travelled · Shortest distance from start · Final direction faced · Shadow-based questions

08 **Ranking and Order**
Rank from top and bottom · Position from left and right · Total number in a row · Position after exchange · Comparing height and age

09 **Mathematical Operations**
Replacing signs with symbols · Interchanging signs · Interchanging numbers · Finding the correct equation · BODMAS with new signs

10 **Missing Numbers**
Missing number in a grid · Missing number in a triangle · Missing number in a circle · Row and column rules · Pairs of numbers

PART 2 FULL SYLLABUS TEST

Tests after 15 November

PHYSICS

5 chapters

01 Electricity: Magnetic and Heating Effects

NCERT Ch. 4

Does an Electric Current Have a Magnetic Effect? · Electromagnets · Does a Current Carrying Wire Get Hot? · How Does a Battery Generate Electricity? · Voltaic Cell · Dry Cells · Rechargeable Batteries

02 Exploring Forces

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What Is a Force? · What Can a Force Do to the Objects on Which It Is Applied? · Are Forces an Interaction Between Two or More Objects? · What Are the Different Types of Forces? · Contact Forces · Non-contact Forces · Weight and Its Measurement · Floating and Sinking

03 Pressure, Winds, Storms, and Cyclones

NCERT Ch. 6

Pressure · Pressure Exerted by Air · Formation of Wind · High-Speed Winds Result in Lowering of Air Pressure · Storms, Thunderstorms, and Lightning · Cyclone

04 Light: Mirrors and Lenses

NCERT Ch. 10

What Are Spherical Mirrors? · What Are the Characteristics of Images Formed by Spherical Mirrors? · What Are the Laws of Reflection? · What Is a Lens?

05 Keeping Time with the Skies

NCERT Ch. 11

How Does the Moon's Appearance Change and Why? · Phases of the Moon · Locating the Moon · Making Sense of Our Observations · How Did Calendars Come into Existence? · Lunar Calendars · Solar Calendars · Luni-solar Calendars · The Indian National Calendar · Are Festivals Related to Astronomical Phenomena? · Why Do We Launch Artificial Satellites in Space?

CHEMISTRY

3 chapters

01 Particulate Nature of Matter

NCERT Ch. 7

What Is Matter Composed of? · What Decides Different States of Matter? · Solid State · Liquid State · Gaseous State · How Does the Interparticle Spacing Differ in the Three States of Matter? · How Particles Move in Different States of Matter?

02 Nature of Matter: Elements, Compounds, and Mixtures

NCERT Ch. 8

What Are Mixtures? · Is Air a Mixture? · Types of Mixtures · What Are Pure Substances? · What Are the Types of Pure Substances? · Elements · Compounds · How Do We Use Elements, Compounds, and Mixtures? · What Are Minerals?

03 The Amazing World of Solutes, Solvents, and Solutions

NCERT Ch. 9

What Are Solute, Solvent, and Solution? · How Much Solute Can a Fixed Amount of Solvent Dissolve? · How Does Temperature Affect the Solubility of a Solute? · Solubility of Gases · Why Do Objects Float or Sink in Water? · What Is Density? · Determination of Density · Effect of Temperature on Density · Effect of Pressure on Density

BIOLOGY

4 chapters

01 The Invisible Living World: Beyond Our Naked Eye

NCERT Ch. 2

What Is a Cell? · Variation in Shape and Structure of Cells · What Are the Levels of Organisation in the Body of a Living Organism? · What Are Microorganisms? · How Are We Connected to Microbes? · Key Players in Cleaning the Environment · Microorganisms and Food · Amazing Microalgae: Tiny Helpers in Water · Why Is Cell Considered to Be a Basic Unit of Life?

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Health: Is It More Than Not Falling Sick? · How Can We Stay Healthy? · Maintain a Healthy Lifestyle · Keep the Environment Clean · How Do We Know That We Are Unwell? · Diseases: What Are the Causes and Types? · How Are Communicable Diseases Caused and Spread? · How Are Non-communicable Diseases Caused? · How to Prevent and Control Diseases? · Treatment of Diseases

03 How Nature Works in Harmony

NCERT Ch. 12

How Do We Experience and Interpret Our Surroundings? · Who All Live Together in Nature? · Does Every Organism in a Community Matter? · Types of Interactions Among Organisms and Their Surroundings · Who Eats Whom? · What Happens to Waste in Nature? · How Does One Change Lead to Another? · How Do Interactions Maintain Balance in Ecosystems? · What Are the Benefits of an Ecosystem? · Human-made Ecosystems · How Do Healthy Ecosystems Serve Our Farms?

	04	**Our Home: Earth, a Unique Life Sustaining Planet**	NCERT Ch. 13
		Why Is Earth a Unique Planet? · What Do the Planets of Our Solar System Look Like? · What Makes the Earth Suitable for Life to Exist? · Position of the Earth · Size of the Earth · Magnetic Field of the Earth · What Allows Life to Be Sustained on Earth? · Air, Water, and Sunlight · Soil, Rocks, and Minerals · Plants, Animals, and Microorganisms · What Keeps Life from Disappearing? · Asexual Reproduction · Sexual Reproduction · What Are the Threats to Life on Earth?	

MATHEMATICS

15 chapters

	01	**Squares and Square Roots**	Ganita Prakash I · Ch. 1
		Square Numbers · Patterns and Properties of Perfect Squares · Perfect Squares and Odd Numbers · Perfect Squares and Triangular Numbers · Square Roots	
	02	**Cubes and Cube Roots**	Ganita Prakash I · Ch. 1
		Cubic Numbers · Taxicab Numbers · Perfect Cubes and Consecutive Odd Numbers · Cube Roots · Successive Differences	
	03	**Algebraic Expressions and Identities**	Ganita Prakash I · Ch. 6
		Some Properties of Multiplication · Increments in Products · Fast Multiplications Using the Distributive Property · Special Cases of the Distributive Property · Square of the Sum/Difference of Two Numbers · Investigating Patterns · Mind the Mistake, Mend the Mistake · This Way or That Way, All Ways Lead to the Bay	
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		Experiencing the Power Play · An Impossible Venture! · Exponential Notation and Operations · The Stones that Shine · Magical Pond · How Many Combinations · The Other Side of Powers · Power Lines · Powers of 10 · Scientific Notation · Did You Ever Wonder? · Linear Growth vs. Exponential Growth · Getting a Sense for Large Numbers	
	05	**Direct and Inverse Proportion**	Ganita Prakash I · Ch. 7
		Observing Similarity in Change · Ratios · Ratios in their Simplest Form · Problem Solving with Proportional Reasoning · Trairasika - The Rule of Three · Sharing, but Not Equally! · Unit Conversions · Proportionality - A Quick Recap · Ratios in Maps · Ratios with More than 2 Terms · Dividing a Whole in a Given Ratio · A Slice of the Pie · Inverse Proportions	
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		Is This a Multiple Of? · Sum of Consecutive Numbers · Breaking Even · Pairs to Make Fours · Always, Sometimes, or Never · What Remains? · Checking Divisibility Quickly · A Shortcut for Divisibility by 9 · A Shortcut for Divisibility by 3 · A Shortcut for Divisibility by 11 · More on Divisibility Shortcuts · Digital Roots · Digits in Disguise	
	07	**Rational Numbers**	NCERT earlier ed. · Ch. 1
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	08	**Understanding Quadrilaterals**	Ganita Prakash I · Ch. 4
		Rectangles and Squares · A Carpenter's Problem · The Process of Finding Properties · A Special Rectangle · Properties of a Square · Angles in a Quadrilateral · More Quadrilaterals with Parallel Opposite Sides · Quadrilaterals with Equal Sidelengths · Playing with Quadrilaterals · Geoboard Activity · Joining Triangles · Kite and Trapezium	
	09	**Mensuration**	Ganita Prakash II · Ch. 7
		Rectangle and Squares · Why Can't Perimeter be a Measure of Area? · Triangles · Some Applications of the Area Formula · Triangles between Parallel Lines with a Common Base · Area of any Polygon · Parallelogram · Rhombus · Trapezium · Finding the Area Using Two Copies of the Trapezium · Areas in Real Life	
	10	**Visualising Solid Shapes**	Ganita Prakash II · Ch. 4
		Visualising Solids · Build it in Your Imagination · Making Solids · Practical Aspects of Using a Net · Shortest Paths on a Cube · Representation of Solids on a Plane Surface · Projections · Shadows · Isometric Projections · Drawing on Isometric Grids	
	11	**Practical Geometry**	
	12	**Introduction to Graphs**	Ganita Prakash II · Ch. 5
		Visualising and Interpreting Data · Line Graphs · Space Jam: A Traffic Problem in the Future? · Catch the (Pattern in) Rain · Infographics · What can a Strip Say? · Data Story: Sleepy-Deepy	
	13	**Linear Equations in One Variable**	NCERT earlier ed. · Ch. 2
		Solving Equations having the Variable on both Sides · Reducing Equations to Simpler Form	
	14	**Factorisation**	NCERT earlier ed. · Ch. 12
		Factors of Natural Numbers · Factors of Algebraic Expressions · What is Factorisation? · Method of Common Factors · Factorisation by Regrouping Terms · Factorisation using Identities · Factors of the Form (x + a)(x + b) · Division of Algebraic Expressions · Division of a Monomial by Another Monomial · Division of a Polynomial by a Monomial · Division of Algebraic Expressions Continued	
	15	**Data Handling**	Ganita Prakash II · Ch. 5
		The Balancing Act · Unchanging Mean! · Relatively Unchanged! · Tinkering with Median · Finding the Unknown · Mean and Median with Frequencies · Spreadsheets	

MENTAL ABILITY

25 chapters

01	**Analogy**	Number analogy · Letter analogy · Word analogy · Figure analogy
02	**Classification**	Odd word out · Odd number out · Odd letter group out · Odd pair out
03	**Number Series**	Add or subtract pattern · Multiply or divide pattern · Square and cube series · Prime number series · Alternating two-step series · Wrong number in a series
04	**Alphabet Series**	Letters with a fixed gap · Forward and backward series · Alternating letter patterns · Letter-group series · Missing term in a series
05	**Coding–Decoding**	Letter shifting code · Number code for letters · Symbol code · Word-to-word code · Opposite letter code · Decoding a given code
06	**Blood Relations**	Direct family relations · Pointing to a person · Coded relations · Family tree puzzles · Generation-based relations
07	**Direction Sense**	Four main directions · Left and right turns · Distance travelled · Shortest distance from start · Final direction faced · Shadow-based questions
08	**Ranking and Order**	Rank from top and bottom · Position from left and right · Total number in a row · Position after exchange · Comparing height and age
09	**Mathematical Operations**	Replacing signs with symbols · Interchanging signs · Interchanging numbers · Finding the correct equation · BODMAS with new signs
10	**Missing Numbers**	Missing number in a grid · Missing number in a triangle · Missing number in a circle · Row and column rules · Pairs of numbers
11	**Alphabet Test**	Position from left and right · Letters between two letters · Opposite position letters · Letters after rearranging · Counting letters with a condition
12	**Word Formation**	Words from a given word · Rearranging jumbled letters · Making words from letter sets · Letter use rules · Counting words formed
13	**Dictionary Order**	Arranging words alphabetically · Order by second or third letter · Position of a word · Words after rearranging letters · Meaningful order of words
14	**Syllogism**	All, some and no statements · Drawing conclusions · Two-statement syllogisms · Either-or conclusions · Venn diagram method
15	**Figure Series**	Rotation pattern · Adding or removing parts · Shifting of symbols · Size and shading changes · Missing figure in a series
16	**Mirror Images**	Mirror image of letters · Mirror image of numbers · Mirror image of words · Mirror image of figures · Mirror image of a clock
17	**Water Images**	Water image of letters · Water image of numbers · Water image of words · Water image of figures · Mirror and water image difference
18	**Embedded Figures**	Finding a figure in a bigger one · Hidden shapes in a pattern · Choosing the matching figure · Figure not hidden
19	**Paper Folding and Cutting**	Folding a paper · Punching holes in folded paper · Cutting shapes from folded paper · Pattern after unfolding · Pattern after folding
20	**Non-Verbal Classification**	Odd figure out · Grouping similar figures · Shape and shading · Number of sides or parts · Rotated figures

#	21	**Counting of Figures** Counting triangles · Counting squares and rectangles · Counting straight lines · Counting circles · Counting cubes in a stack
	22	**Calendar** Leap year and ordinary year · Odd days · Day of a given date · Repeating calendars · Days between two dates
	23	**Clock** Reading time on a clock · Angle between the hands · Hands overlapping or opposite · Hands at right angle · Fast and slow clocks · Mirror image of time
	24	**Logical Reasoning** Statement and conclusion · Statement and assumption · Cause and effect · Seating arrangement · Logical puzzles
	25	**Venn Diagrams** Representing groups by circles · Relation between groups · Overlapping groups · Reading a Venn diagram · Counting from a Venn diagram

Topics follow the latest NCERT textbooks for Class VIII: Curiosity (Science, first edition June 2025, reprint 2026-27) and Ganita Prakash (Mathematics, Parts I and II, 2025). Rational Numbers, Linear Equations in One Variable and Factorisation are taken from the earlier NCERT Mathematics book, as the new books do not cover them. Mental Ability topics are not part of NCERT.