



2nd ग्रेड शिक्षक

द्वितीय प्रश्न-पत्र: गणित

टास्क आधारित
TEST SERIES

Offline Online



TOTAL TEST-19

MINOR
TEST
12

MAJOR
TEST
03

FINAL
TEST
04

सीकर सेन्टर : नवलगढ रोड, सीकर (राज.)
जयपुर सेन्टर : रिद्धि-सिद्धि चौराहा,
गोपालपुरा बाईपास, जयपुर

Sikar Center

Jaipur Center

72400-12121

99828-44044

ऑफलाइन परीक्षा केन्द्र

अजमेर	बीकानेर	जोधपुर (East)	जैतारण	कोटपूतली	फलोदी	सुजानगढ़
अलवर	बूंदी	जोधपुर (West)	जायल	कुचामन	राजसमंद	सूरतगढ़
बांसवाड़ा	चित्तौड़गढ़	धौलपुर	झुंझुनूं	नागौर	सागवाड़ा	तारानगर
बाड़मेर	चूरू	डूंगरपुर	झालावाड़	नीमकाथाना	सवाई माधोपुर	टोंक
भरतपुर	दौसा	गंगापुर सिटी	झोटावाड़ा (जयपुर)	नौहर	सीकर	उदयपुर
भीलवाड़ा	डेगाना	हनुमानगढ़	करौली	पाली	सिरोही	तिवरी
ब्यावर	डीडवाना	जयपुर	कोटा	प्रतापगढ़	श्रीगंगानगर	

टेस्ट सीरीज की प्रमुख विशेषताएँ

- ऑफलाइन अभ्यर्थियों के लिए पाठ्य सामग्री का वितरण किया जायेगा।
- ऑनलाइन टेस्ट हेतु पाठ्य सामग्री केवल Read Only Mode में उपलब्ध होगी।
- प्रश्न-पत्र का माध्यम हिन्दी व अंग्रेजी दोनों होगा।
- प्रथम प्रश्न-पत्र के लिए टास्क बुकलेट उपलब्ध करवायी जाएगी जिसका माध्यम केवल हिन्दी होगा।
- द्वितीय प्रश्न-पत्र के लिए PYQ और शिक्षण विधियों की टास्क बुकलेट उपलब्ध करवायी जाएगी।

FEES

OFFLINE MODE	प्रथम प्रश्न-पत्र With Booklet	द्वितीय प्रश्न-पत्र PYQ & Teaching Methods Booklet	प्रथम व द्वितीय प्रश्न-पत्र With Booklet
	3100/- + GST	1800/- + GST	4700/- + GST
ONLINE MODE	प्रथम प्रश्न-पत्र Without Booklet	द्वितीय प्रश्न-पत्र PYQ & Teaching Methods Booklet	प्रथम व द्वितीय प्रश्न-पत्र
	1900/- + GST	1800/- + GST	3550/- + GST
ONLINE MODE	प्रथम प्रश्न-पत्र With Booklet (Read Only Mode)	द्वितीय प्रश्न-पत्र PYQ & Teaching Methods Booklet (Read Only Mode)	
	800/- + GST	800/- + GST	

ऑनलाइन टेस्ट सीरीज में बुकलेट एप पर रीड ऑनली मोड में ही उपलब्ध रहेगी।

रजिस्ट्रेशन के लिए QR कोड स्कैन करें या हमारी वेबसाइट पर क्लिक करें-
www.kalam.academy



TEST	DATE	REMARK
Minor Test-01	15.02.2026	
Minor Test-02	22.02.2026	
Minor Test-03	01.03.2026	
Minor Test-04	08.03.2026	
Major Test-01	15.03.2026	
Minor Test-05	22.03.2026	
Minor Test-06	29.03.2026	
Minor Test-07	05.04.2026	
Minor Test-08	12.04.2026	
Major Test-02	19.04.2026	
Minor Test-09	26.04.2026	
Minor Test-10	03.05.2026	
Minor Test-11	10.05.2026	
Minor Test-12	17.05.2026	
Major Test-03	24.05.2026	
Final Test-01	31.05.2026	
Final Test-02	07.06.2026	
Pre. 2nd Grade	14.06.2026	
Final Test-03	21.06.2026	

नोट:- विशेष परिस्थिति में परीक्षा के दिन एवं दिनांक में परिवर्तन किया जा सकता है।

Schedule & Syllabus

Test & Date	Syllabus
<div>MINOR TEST 01</div> <div>15.02.2026</div>	<p>Number Systems:</p> <ul style="list-style-type: none">* Rational numbers as recurring/terminating decimals. Existence of non-rational numbers (irrational numbers), Real Numbers and their Decimal Expansions, Operations on Real Numbers, Laws of Exponents for Real Numbers. Euclid's division lemma, Fundamental Theorem of Arithmetic. <p>Algebra:</p> <ul style="list-style-type: none">* Degree of a polynomial. Constant, linear, quadratic, cubic polynomials; Zeros/roots of a polynomial/equation. Relationship between zeros/roots and coefficients of a polynomial/equation. Problems based on Remainder Theorem and Factor Theorem. Quadratic equations with real coefficients, formation of quadratic equations with given roots, Symmetric functions of roots. Linear and Quadratic inequations. Algebra of complex numbers, addition, multiplication, conjugation, polar representation, properties of modulus and principal argument, triangle inequality, cube roots of unity, geometric interpretations. Arithmetic and geometric progressions, arithmetic and geometric means, sums of finite arithmetic and geometric progressions, infinite geometric series, Arithmetico-Geometric Progression. <p>Abstract Algebra:</p> <ul style="list-style-type: none">* Definition and example of groups. General properties of groups, Order of an element of a group. Cyclic group, Permutations: Even and Odd permutations. Groups of permutations. Cyclic permutation, Alternating group. <p>Teaching Methods</p> <ul style="list-style-type: none">* Meaning and Nature of Mathematics. Mathematics as in National Curriculum framework (NCF), Linkage of Mathematics with other school subjects curriculum.

Schedule & Syllabus

Test & Date	Syllabus
<div>MINOR TEST 02</div> <div>22.02.2026</div>	<p>Geometry:</p> <ul style="list-style-type: none"> * Lines and Angles, Properties of angles at a point, Parallel Lines and a Transversal, Sides and angles of a triangle, Properties of a triangle, Congruency of triangle, Similar triangles, Inequalities in a triangle, Concurrence of medians and altitudes, Quadrilaterals, Properties of angles, sides and diagonals of a Parallelogram, Rectangle, Rhombus, Trapezium and square. The Mid-point Theorem. Circle and terms related to it. Perpendicular from the Centre to a Chord, Equal Chords and their Distances from the Centre. Angle Subtended by an Arc of a Circle, Cyclic Quadrilaterals. Tangents from a Point on a Circle. <p>Algebra:</p> <ul style="list-style-type: none"> * Sum of the first n natural numbers, sums of squares and cubes of the first n natural numbers, Fundamental principle of counting. Factorial n ($n!$). Permutations and combinations and simple applications. Binomial theorem for a positive integral index, general term and middle term, properties of Binomial coefficients. <p>Matrices and Determinants:</p> <ul style="list-style-type: none"> * Matrices, algebra of matrices, type of matrices, transpose of a matrix, symmetric and skew symmetric matrices. Operations on matrices: Addition, multiplication and multiplication with a scalar. Determinants of order two and three, properties of determinants, minors, co-factors and applications of determinants in finding the area of a triangle, Adjoint and inverse of a square matrix, inverse of matrix using elementary transformations, Test of consistency and solution of simultaneous linear equations in two and three variables using determinants and matrices. <p>Abstract Algebra:</p> <ul style="list-style-type: none"> * Subgroups, Cosets, Lagrange's theorem, Normal subgroup, Conjugate elements, conjugate complexes, Centre of a group, Simple group, Normaliser of an element and of a complex. Quotient Groups. Group homomorphism and isomorphism with elementary basic properties, fundamental theorem of homomorphism in groups. Isomorphism theorems of groups. Cayley's theorem. <p>Teaching Methods</p> <ul style="list-style-type: none"> * Contribution of Indian knowledge system in development of Mathematics. * Importance & meaning of Lesson Plan (Herbertian Approach), Unit Plan (Morrison Approach).

Schedule & Syllabus

Test & Date	Syllabus
<div> <div>MINOR TEST 03</div> <div>01.03.2026</div> </div>	<p>Mensuration:</p> <ul style="list-style-type: none"> ✿ (i) Areas: Area of plane figures involving triangles, quadrilaterals and circle. Area of sectors and segments of a circle. Problems based on areas and perimeter/circumference of the above said plane figures. (ii) Surface Areas and Volumes: Surface areas and volumes of cubes, cuboids, spheres (including hemispheres) and right circular cylinders/cones. Problems involving converting one type of metallic solid into another and other mixed problems. <p>Sets, Relations and Functions:</p> <ul style="list-style-type: none"> ✿ Sets and their representations. Different kinds of sets. Venn diagrams. Operation on Sets. De-Morgan's laws and practical problems based on them. Ordered pair, relations, domain and co-domain of relations, equivalence relation. Function as a special case of relation, domain, co-domain, range of functions, invertible functions, even and odd functions, into, onto and one-to-one functions, special functions (polynomial, trigonometric, exponential, logarithmic, absolute value, greatest integer etc.), sum, difference, product and composition of functions. <p>Real Analysis:</p> <ul style="list-style-type: none"> ✿ Real numbers as a complete ordered field, linear sets, lower and upper bounds, limit points, closed and open sets, Real sequence, limit and convergence of a sequence, convergence of series, tests for convergence of a series, absolute convergence, uniform convergence of sequence and series of functions. <p>Teaching Methods</p> <ul style="list-style-type: none"> ✿ General and Specific objectives of Mathematics Teaching and Bloom Taxonomy.

Schedule & Syllabus

Test & Date	Syllabus
<div>MINOR TEST 04</div> <div>08.03.2026</div>	<p>Trigonometry:</p> <ul style="list-style-type: none">✿ Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Trigonometric ratios of allied angles. Trigonometric functions and their periodicity, addition and subtraction formulae, formulae involving multiple and sub-multiple angles, general solution of trigonometric equations. Inverse trigonometric functions (principal value only) and their elementary properties. Problems on heights and distances. <p>Complex Analysis:</p> <ul style="list-style-type: none">✿ Functions, Limits, continuity and differentiability of complex functions. Concept of an analytic function, Cartesian and Polar form of Cauchy-Riemann equations. Harmonic function, Conjugate function, Conformal mapping. <p>Teaching Methods</p> <ul style="list-style-type: none">✿ Methods and approaches of Mathematics Teaching (analytic, synthetic, inductive, deductive, Project & Laboratory).✿ Supervised study, Programmed Learning, Experiential and Constructive Learning in Mathematics. <div>Major Test-01 (15.03.2026) Minor-01 + Minor-02 + Minor-03 + Minor-04</div>

Schedule & Syllabus

Test & Date	Syllabus
<div>MINOR TEST 05</div> <div>22.03.2026</div>	<p>Analytical Geometry:</p> <ul style="list-style-type: none"> ✿ Two dimensions: Cartesian coordinates, distance between two points, section formulae, shift of origin. Equation of a straight line in various forms, slope of line, angle between two lines, distance of a point from a line, lines through the point of intersection of two given lines, equation of the bisector of the angle between two lines, concurrency of lines. Centroid, orthocenter, incentre and circumcenter of a triangle. Equation of a circle in various forms, equation of tangent, normal and chord of a circle. Parametric equations of a circle, intersection of a circle with a straight line/circle, equation of a circle through the points of intersection of two circles and those of a circle and a straight line. <p>Linear Programming:</p> <ul style="list-style-type: none"> ✿ Introduction, related terminology such as constraints, objective function, optimization, different types of linear programming (L.P.) problems, mathematical formulation of L.P. problems, graphical method of solution for problems in two variables, feasible and infeasible regions, feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints). Convex sets and their properties. Simplex Method. Concepts of duality in linear programming. Framing of dual programming. Assignment problems, Transportation problems. <p>Teaching Methods</p> <ul style="list-style-type: none"> ✿ Audio-Visual aids in Mathematics. Technological Pedagogical content knowledge (TPCK) ✿ Academic & Professional characteristics of Mathematics Teacher.

Schedule & Syllabus

Test & Date	Syllabus
<div data-bbox="155 783 482 1329"> <p>MINOR TEST 06</p> <p>29.03.2026</p> </div>	<p>Analytical Geometry:</p> <ul style="list-style-type: none"> ✿ Equation of a parabola, ellipse, hyperbola and their foci, directrices and eccentricity, parametric equations, equations of tangent and normal. Problems based on locus. General equation of second degree. Nature of conic. Polar equation of a conic, polar equation of tangent, normal, asymptotes, chord of contact, auxiliary circle, director circle of a conic and related problems. <p>Numerical Analysis and Difference Equation:</p> <ul style="list-style-type: none"> ✿ Difference operators and factorial notation, Differences of polynomial, Newton's formulae for forward and backward interpolations. Divided differences, relation between divided differences and Simple difference. Newton's general interpolation formulae, Lagrange interpolation formula. Central differences, Gauss, Stirling and Bessel interpolation formulae. Numerical Differentiation. Numerical integration, Newton-Cotes quadrature formula, Gauss's quadrature formulae, Trapezoidal, Simpson's and Weddle's rules, Estimation of errors, Solution of Algebraic and Transcendental equations, bisection method, iteration method, Regula Falsi and Newton Raphson methods. Solution of linear difference equations with constant and variable coefficients. First and higher order homogeneous linear difference equations, non-homogenous linear difference equations, Complementary functions, Particular integral. <p>Teaching Methods</p> <ul style="list-style-type: none"> ✿ Importance and characteristics of Unit test, Achievement test, Diagnostic test and steps of their preparation. Concept of 360 degree assessment in Mathematics.

Schedule & Syllabus

Test & Date	Syllabus
<div>MINOR TEST 07 05.04.2026</div>	<p>Calculus:</p> <ul style="list-style-type: none">✿ Limits, continuity and differentiability. Differentiation of the sum, difference, product and quotient of two functions. Chain rule, derivative of composite functions, derivatives of trigonometrical, inverse trigonometric functions, derivative of implicit functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second and third order derivatives. Rolle's and Lagrange's Mean value Theorems, Applications of derivatives: Rate of change of quantities, monotonic increasing and decreasing functions, Maxima and minima of functions of one variable, tangent and normal. <p>Advance Calculus:</p> <ul style="list-style-type: none">✿ Polar Co-ordinates. Angle between radius vector and the tangent. Angle between two curves in polar form. Length of polar tangent, sub-tangent, normal and subnormal, Pedal equation of a curve, Derivatives of an arc. Curvature, various formulae, Centre of curvature and chord of curvature and related problems. Partial differentiation, Euler's theorem on homogeneous functions, Chain rule of partial differentiation, total differentiation, Maxima and Minima of functions of two independent variables and of three variables connected by a relation, Lagrange's Method of undetermined multipliers. Asymptotes, double points, curve tracing, Envelopes and evolutes. <p>Teaching Methods</p> <ul style="list-style-type: none">✿ Meaning and Nature of Mathematics. Mathematics as in National Curriculum framework (NCF), Linkage of Mathematics with other school subjects curriculum. (Revision)

Schedule & Syllabus

Test & Date	Syllabus
<div>MINOR TEST</div> <div>08</div> <div>12.04.2026</div>	<p>Calculus:</p> <ul style="list-style-type: none"> ✿ Integral as an anti-derivative, Integration of a variety of functions by substitution, by partial fractions and integration by parts. Integration of rational and irrational functions. Definite integral and their properties, application of definite integrals in finding the area under simple curves, especially lines, arcs of circles/parabolas/ellipses/hyperbola, area between the said curves (the region should be clearly identifiable). <p>Advance Calculus:</p> <ul style="list-style-type: none"> ✿ Theory of Beta and Gamma functions. Differentiation and integration under the sign of integration. Double integral, change of order of integration and changing into polar co-ordinates, applications in finding areas, triple integral, application to find volume. Dirichlet's integral. Quadrature and Rectification. Volume and Surface area of solids of revolution. <div>Major Test-02 (19.04.2026)</div> <div>Minor-05 + Minor-06 + Minor-07 + Minor-08</div>
<div>MINOR TEST</div> <div>09</div> <div>26.04.2026</div>	<p>Vector Algebra:</p> <ul style="list-style-type: none"> ✿ Vectors and scalars, magnitude and direction of a vector. Direction cosines/ratios of vectors. Types of vectors (equal, unit, zero, parallel and collinear vectors etc.), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Scalar (dot) product of vectors, projection of a vector on a line. Vector (cross) product of vectors. Scalar and Vector triple product and problems related to them. <p>Vector Calculus:</p> <ul style="list-style-type: none"> ✿ Vector differentiation: Curl, Gradient and Divergence & Identities involving these operators and related problems. Vector integration: line and surface integral, Problems based on Stoke, Green and Gauss theorems. <p>Teaching Methods</p> <ul style="list-style-type: none"> ✿ General and Specific objectives of Mathematics Teaching and Bloom Taxonomy. (Revision)

Schedule & Syllabus

Test & Date	Syllabus
<div>MINOR TEST</div> <div>10</div> <div>03.05.2026</div>	<p>Analytical Geometry:</p> <ul style="list-style-type: none"> * Three dimensions: Distance between two points, direction cosines and direction ratios, equation of a straight line in space, skew lines, shortest distance between two lines, equation of a plane, distance of a point from a plane and a line, Cartesian and vector equation of a plane and a line. Angle between (i) two lines, (ii) two planes (iii) a line and a plane. Coplanar lines. <p>Analytical Geometry of Three dimensions:</p> <ul style="list-style-type: none"> * (i) Sphere: General Equation, Tangent Plane, Pole and Polar, Intersection of two spheres. (ii) Cone: Enveloping cone, Tangent plane, Reciprocal cone, Three mutually Perpendicular generators, right circular cone. (iii) Cylinder: Right circular cylinder, Enveloping cylinder <p>Teaching Methods</p> <ul style="list-style-type: none"> * Methods and approaches of Mathematics Teaching (analytic, synthetic, inductive, deductive, Project & Laboratory). * Supervised study, Programmed Learning, Experiential and Constructive Learning in Mathematics. (Revision)
<div>MINOR TEST</div> <div>11</div> <div>10.05.2026</div>	<p>Differential Equations:</p> <ul style="list-style-type: none"> * Ordinary differential equations of first order and first degree, differential equations of first order but not of first degree, Clairaut's equations, general and singular solutions, linear differential equations with constant coefficients, homogeneous differential equation, second order linear differential equations, simultaneous linear differential equations of first order. <p>Teaching Methods</p> <ul style="list-style-type: none"> * Audio-Visual aids in Mathematics. Technological Pedagogical content knowledge (TPCK) * Academic & Professional characteristics of Mathematics Teacher. (Revision)

Schedule & Syllabus

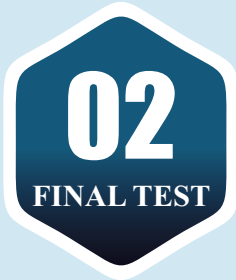
Test & Date	Syllabus
<div>MINOR TEST 12</div> <div>17.05.2026</div>	<p>Statics and Dynamics:</p> <ul style="list-style-type: none">✿ Composition and resolution of co-planer forces, component of a force in two given directions, equilibrium of concurrent forces, parallel forces and moment, velocity and acceleration, simple linear motion under constant acceleration, Laws of motion, projectile. <p>Statistics and Probability:</p> <ul style="list-style-type: none">✿ Mean, median, mode of grouped and ungrouped data, calculation of standard deviation, variance and mean deviation for grouped and ungrouped data. Probability: Probability of an event, addition and multiplication theorems of probability, conditional probability, Bayes' theorem, probability distribution of a random variate, Bernoulli trials and binomial distribution. <p>Teaching Methods</p> <ul style="list-style-type: none">✿ Importance and characteristics of Unit test, Achievement test, Diagnostic test and steps of their preparation. Concept of 360 degree assessment in Mathematics. (Revision) <div>Major Test-03 (24.05.2026)</div> <div>Minor-09 + Minor-10 + Minor-11 + Minor-12</div>

2nd ग्रेड शिक्षक

टास्क आधारित TEST SERIES



31.05.2026



07.06.2026



21.06.2026

परीक्षा से पहले
एक परीक्षा

Pre.
2nd Grade

14.06.2026



सीकर सेन्टर : नवलगढ रोड, सीकर (राज.) मो. : 72400-12121
रिद्धि-सिद्धि चौराहा, गोपालपुरा बाईपास,
जयपुर सेन्टर : जयपुर (राज.) मो. : 99828-44044



Kalam Academy Sikar
Kalam RAS Academy | Kalam IAS Academy



www.kalam.academy
www.Kalamias.academy