SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

Deemed to be University u/s 3 of UGC Act, 1956

School of Environment Architecture & Design

2023

NATA
NATIONAL APTITUDE TEST
IN ARCHITECTURE

PROPOSAL FOR CONDUCTING NATA GUIDANCE FOR NATA 2023 IN VIEW OF SEAD ADMISSIONS 2023

Nata 1 – 21.4.2023 SESSION:1 - 10th April to 17th April 2023

Nata 2 – 9.6.2023 SESSION:2 – 11th May to 26th May 2023

Nata 3 – 9.7.2023 SESSION:3 – 29th May to 5th June 2023

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Brief of Proposal

SL.NO.	TOPIC	DESCRIPTION
1	Course Title	NATA 2023 Guidance by Architecture Faculty
2	Mode	Hybrid Mode – Offline & Online Classes
3	Proposed Time of the Year	**Nata 1 – 21.4.2023 SESSION:1 – 10th April to 17th April 2023** **Nata 2 – 9.6.2023 SESSION:2 – 11th May to 26th May 2023** **Nata 3 – 9.7.2023 SESSION:3 – 29th May to 5th June 2023**
4	Targets	School Students, Walk-in Architecture Aspirants and NPF Leads
5	Description of the Host Institution	SRM School of Environment, Architecture, and Design (SRM SEAD) provides a comprehensive architecture and design programme with a focus on sustainable architectural developments. SEAD, a city-based campus founded in 2009-2010, with highly qualified faculty aims to guide the students to succeed in NATA 2023, an entrance examination to join B.Arch Course. The outcome-based educational pedagogy encourages students to approach design solutions to architectural challenges with critical thinking, artistic passion, and advanced technology.
6	NATA 2023	NATA measures the aptitude of the applicant for specific field of study, i.e. Architecture, through assessment of cognitive skills, visual perception and aesthetic sensitivity tests, logical reasoning and critical thinking ability, etc., besides the learning that the candidate has acquired over the past few years and is related to the specific field of study. Candidates who have completed their 10 + 2 examination with Physics, Chemistry and Mathematics or 10+ 3 Diploma with Mathematics as subject of study can appear for NATA 2023. Candidates appearing for 10+2 examination with Physics, Chemistry and Mathematics as subjects of study or 10+3 Diploma with Mathematics in the current year may also provisionally appear for NATA-2023. Candidates may note that NATA 2023 is the qualifier for admission to B.Arch. program offered by Universities/ Institutions in the country, subject to the fulfillment of eligibility criteria as prescribed by the Council.
7	Description of the Plan	The guidance aims in shaping young minds to the requirements of architecture requisites. It prepares to help them succeed in the NATA which is prequalification spelled out by COA for Architecture course. The parental care, ease of accessibility to the teachers, easy commute to the institution, individual attention demonstrated by the faculty aims to inspire the architecture aspirants to be a part of SEAD.
8	Faculty Responsibility	Ar. Vaidehi E.P., Associate Professor, NATA Co-ordinator Ar. Shalini Kumari, Assistant Professor, Admission Co-ordinator Er. Shobana Suresh, Assistant Professor Sr.G., NPF Co-ordinator

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Plan for NATA Guidance

Plan prior to NATA Guidance

S.No.	Plan	Responsibility	Date
1	Announce of Programme to Schools	Ar. Shalini Kumari	
2	Inviting Students to join Career Guidance	Er.Shobana S	
3	Career Guidance Programme	Prof. Raja & Ar.Merrin	

Schedule of NATA Guidance to the School Students					
			First NATA'23	SecondNATA'23	Third NATA'23
S.No.	Topics	Faculty			
	Class Schedule		9am to 12noon	9am to 12noon	9am to 12noon & 1pm to 3pm
1	Physics & Chemistry	Physics Dept.		11.5.23	29.5.23(FN)
2	Mathematics	Maths Dept.		12.5.23	29.5.23(AN)
3	Aesthetic Sensitivity	VIjayasree/Avinash	10.4.2023(FN)	15.5.23	30.5.23(FN)
4	Colour Theory	Sujatha/Monisha	10.4.2023(AN)	16.5.23	30.5.23(AN)
5	Language and Interpretation	Sanchana/Nivedha	11.4.2023(FN)	17.5.23	31.5.23(FN)
6	Visual Perception and Cognition	Narayanan/Fathima	11.4.2023(AN)	18.5.23	31.5.23(AN)
7	General Knowledge and Current Affairs	Manju/Ravi	12.4.2023(FN)	19.5.23	1.6.23(FN)
8	Lateral Thinking and Logical Reasoning	Vaidehi/Sankeerani	12.4.2023(AN)	22.5.23	1.6.23(AN)
9	Building Anatomy and Architectural Vocabulary	Anusha/ Shalini	13.4.2023(FN)	23.5.23	2.6.23(FN)
10	Basic Techniques of Building Construction/Knowledge of Material	Saranya/Pongomathi	13.4.2023(AN)	24.5.23	2.6.23(AN)
11	Graphics and Imagery	Yuvaraj/Srinath	17.4.2023(FN)	25.5.23	5.6.23(FN)
12	Geometry	Venkatesh Babu	17.4.2023(AN)	26.3.23	5.6.23(AN)

NATA 2023 Syllabus

Candidates will be guided to attempt and succeed in NATA 2023 based on the syllabus listed below:

Topics
Physics and Geometry
Mathematics
Aesthetic Sensitivity
Colour Theory
Language and Interpretation
Visual Perception and Cognition
Lateral Thinking and Logical Reasoning
General Knowledge and Current Affairs
Building Anatomy and Architectural Vocabulary
Basic Techniques of Building Construction and Knowledge of Material
Graphics and Imagery

While preparing the questions for NATA 2023, the authorities will keep many factors that they wish to assess in mind. The following are the parameters the candidates have to be trained:

Abstract Reasoning - Candidates will be tested on their general knowledge and their ability to apply it in situations.

Situational Judgment - Candidates will be tested on their problem-solving abilities.

Numerical Reasoning - Candidates will be tested on their ability to solve simple numerical problems.

Inductive Reasoning - Candidates will be tested on their ability to analyze data and patterns.

Verbal Reasoning - Candidates will be assessed on their verbal logic.

Logical Reasoning - Candidates will be assessed on their ability to recognize patterns, relationships, sequences and more.

Diagrammatic Reasoning - Candidates will be tested on their ability to analyze drawings and use logical reasoning.
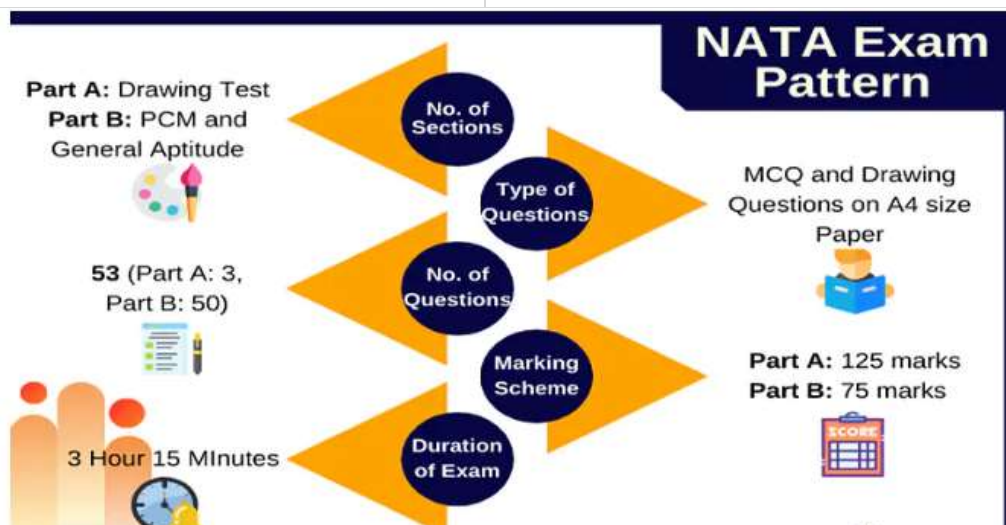
NATA 2023 Exam Pattern

Candidates will be able to check the details regarding the NATA 2023 exam pattern from the table given below:

Particulars	Details
Mode	Computer-Based Test (Online)
Duration	3 hours
Medium	English
Maximum Marks	200
Sections	Aptitude
Number of Questions	125
Type of Questions	Multiple Choice Questions (MCQs) Preferential Answer Type Questions (PAQ) Numerical Answer Type Questions (NAQ)
Marking Scheme	75 Questions - 1 mark will be given for every correct answer. 25 Questions - 2 marks will be given for every correct answer. 25 Questions - 3 marks will be given for every correct answer.

NATA Exam Pattern

Part A: Drawing Test
Part B: PCM and General Aptitude

No. of Sections

Type of Questions

MCQ and Drawing Questions on A4 size Paper

53 (Part A: 3, Part B: 50)

No. of Questions

Marking Scheme

Part A: 125 marks
Part B: 75 marks

3 Hour 15 MInutes

Duration of Exam

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Aptitude Test Parameters	Testing Ability
Diagrammatic Reasoning	Tests the candidate ability of logical reasoning, using diagrams and scenarios
Logical Reasoning	Tests the candidate ability to recognize patterns, sequences or relationships between shapes and imagery
Verbal Reasoning	Assesses the candidate ability to assess verbal logic
Situational Judgment	Assesses the problem-solving ability of the candidate
Inductive Reasoning	Tests the candidate ability to see patterns and analyse given data
Numerical Reasoning	Tests the candidate's Mathematical ability through simple problems
Abstract Reasoning	Assesses the candidate's general knowledge, and ability to utilize knowledge in new situations

NATA 2023 Schedule of Examination

Exam Timing	Exam Duration	Section/Part	Number of Questions & Marks	Total
10 am to 12:15 pm	135 Minutes	Part A (Online) Drawing Test	3 Questions of 35 marks, 35 marks and 55 marks	125 Marks
Intermission Period of 15 Minutes (12:15 pm to 12:30 pm)				
12:30 pm to 1:15 pm	45 Minutes	Part B (Online): PCM	15 Questions x 1.5 marks	75 marks
		Part B: General Aptitude-Logical Reasoning	35 Questions x 1.5 marks	

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NATA Syllabus For Mathematics

Units	Topics Covered
Algebra	Definitions of A. P. and G.P.; General term; Summation of first n-terms of series $\sum n$, $\sum n^2$, $\sum n^3$; Arithmetic/Geometric series, A.M., G.M. and their relation; Infinite G.P. series and its sum
Logarithms	Definition; General properties; Change of base
Matrices	Concepts of m x n (m ≤ 3, n ≤ 3) real matrices, operations of addition, scalar multiplication and multiplication of matrices. Transpose of a matrix. The determinant of a square matrix. Properties of determinants (statement only). Minor, cofactor and adjoint of a matrix. Nonsingular matrix. The inverse of a matrix. Finding the area of a triangle. Solutions of system of linear equations. (Not more than 3 variables).
Trigonometry	Trigonometric functions, addition and subtraction formulae, formulae involving multiple and submultiple angles, general solution of trigonometric equations. Properties of triangles, inverse trigonometric functions and their properties
Coordinate Geometry	Distance formula, section formula, area of a triangle, condition of collinearity of three points in a plane. Polar coordinates, transformation from Cartesian to polar coordinates and vice versa. Parallel transformation of axes, concept of locus, elementary locus problems. Slope of a line. Equation of lines in different forms, the angle between two lines. Condition of perpendicularity and parallelism of two lines. Distance of a point from a line. Distance between two parallel lines. Lines through the point of intersection of two lines.Equation of a circle with a given centre and radius. Condition that a general equation of second degree in x, y may represent a circle. Equation of a circle in terms of endpoints of a diameter. Equation of tangent, normal and chord. Parametric equation of a circle. The intersection of a line with a circle. Equation of common chord of two intersecting circles.
3-dimensional coordinate geometry	Direction cosines and direction ratios, the distance between two points and section formula, equation of a straight line, equation of a plane, distance of a point from a plane.
Theory of calculus	Functions, composition of two functions and inverse of a function, limit, continuity, derivative, chain rule, derivatives of implicit functions and functions defined parametrically. Integration as a reverse process of differentiation, indefinite integral of standard functions. Integration by parts. Integration by substitution and partial fraction. Definite integral as a limit of a sum with equal subdivisions. The fundamental theorem of integral calculus and its applications. Properties of definite integrals. Formation of ordinary differential equations, solution of homogeneous differential equations, separation of variables method, linear first-order differential equations
Application of calculus	Tangents and normals, conditions of tangency. Determination of monotonicity, maxima and minima. Differential coefficient as a measure of rate. Motion in a straight line with constant acceleration. Geometric interpretation of definite integral as area,

	calculation of area bounded by elementary curves and Straight lines. Area of the region included between two elementary curves.
Permutation & Combination	Permutation of n different things taken r at a time (r ≤ n). Permutation of n things not all different. Permutation with repetitions (circular permutation excluded). Combinations of n different things taken r at a time (r ≤ n). Combination of n things not all different. Basic properties. Problems involving both permutations and combinations.

NATA Syllabus For Physics & Chemistry

Subject	Syllabus
Chemistry	Some Basic Concepts of Chemistry; Structure of Atom; Classification of Elements and Periodicity in Properties Chemical Bonding and Molecular; States of Matter: Gases and Liquids Chemical Thermodynamics; Equilibrium; Redox Reactions; Hydrogen; s- Block Elements p -Block Elements Organic Chemistry: Some Basic Principles and Techniques; Hydrocarbons; Environmental Chemistry
Physics	Electrostatics- Electric charges and Fields; Electrostatic Potential and Clearance Current Electricity; Magnetic Effects of Current and Magnetism; Moving Charges and magnetism; Magnetism and Matter Electromagnetic Induction and Alternating currents- Electromagnetic Induction; Alternating CurrentOptics- Ray optics and optical instruments, Wave Optics Dual nature of radiation and Matter Atoms and Nuclei- Atoms, Nuclei Electronic devices- Semiconductor Electronics, Materials, Devices and Simple Circuits.

NATA Syllabus For General Aptitude

Units	Topics Covered
General	Objects, texture related to architecture and the built environment. Interpretation of pictorial compositions, Visualizing three-dimensional objects from two-dimensional drawing. Visualizing different sides of 3D objects. Analytical reasoning, mental ability (visual, numerical and verbal), General awareness of national/international architects and famous architectural creations
Mathematical Reasoning	Statements, logical operations like and, or, if and only if, implies, implied by. Understanding of tautology, converse, contradiction and contrapositive.
Sets & Relations	The idea of sets, subsets, power set, complement, union, intersection and difference of sets, Venn diagram, De Morgan's Laws, Relation and its properties. Equivalence relation — definition and elementary examples.

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NATA Syllabus For Drawing Test

Unit	Syllabus
Drawing	Understanding of scale and proportion of objects, geometric composition, shape, building forms and elements, aesthetics, colour texture, harmony and contrast. Conceptualization and Visualization through structuring objects in memory. Drawing of patterns – both geometrical and abstract. Form transformations in 2D and 3D like union, subtraction, rotation, surfaces and volumes. Generating plan, elevation and 3D views of objects. Creating 2D and 3D compositions using given shape and forms. Perspective drawing, Sketching of urbanscape and landscape, Common day-to-day life objects like furniture, equipment etc., from memory.

PROPOSED BUDGET

	Particulars	Amount
	Study Material	
1	Creative Edge MasterClass Study Material	9999/-
2	Guide for NATA - B.Arch Entrance	495/-
3	NATA Entrance Exam Guide	699/-
4	NATA,JEE B.ARCH ENTRANCE GUIDE-2023 & 2023(COMBO) With Online Mock Test Series+3 Additional Ebooks + Study Materials 500 Solved Sketches	1299/-
5	Silica Study Material	699/-
6	NATA & B.ARCH Complete Self Study Material- Ar. Shadan Usmani	340/-
7	Study Guide for B.Arch 2023	245/-
8	NATA B.Arch Question Bank	1224/-
		15000/-
B	**Career Guidance Program**	
	Remuneration for the Career Guidance Expert	**20,000/-**
C	**Flyers & Brochures**	**15000/-**
	Flyers and Brochures to Advertise NATA Guidance	
	Total	**Rs. 50,000/-**

Ar. Vaidehi.E.P.   **Ar. Shalini Kumari**   **Ar. Logesh.M.**   **Prof. Uma Ramanathan**
NATACoordinator   Admission Coordinator   VP Admin   Dean,
SRMIST SEAD   SRMIST SEAD   SRMIST SEAD   SRMIST SEAD