

2020

NATA

National Aptitude Test in Architecture

Information Brochure

NATA Website: www.nata.in

Version: 1.0

Release date: 01-02-2020

Go green: Avoid printing



Council of Architecture

India Habitat Centre, Core 6A, 1st Fl,

Lodhi Road, New Delhi - 110 003

Web: www.nata.in, Email: helpdesk.nata2020@gmail.com

NATA Help Desk No.: 9319275557, 7303487773



Contents	Page No.
1.0 Introduction	3
2.0 About NATA 2020	4
3.0 Schedule of Examination	5
4.0 Pattern of Questions and Mode of Answering	5
4.1 Drawing Test	6
4.2 PCM & General Aptitude Test	6
5.0 Eligibility Criteria for Candidates	7
5.1 Taking NATA-2020	7
5.2 Admission to First year of B.Arch. course	7
5.3 Reservations under different categories	7
5.4 Help desk details	7
6.0 Application Procedure	8
7.0 Filling up of Application Form	8
7.1 Application form	8
7.2 Image uploading	9
7.3 Application Fee Details	10
7.4 Confirmation Page (A proof of REGISTRATION)	10
7.5 Discrepancy and correction (By Candidates)	10
8.0 Issue of Admit Card	11
9.0 Allocation of Examination Centre	11
10.0 Declaration of Results	11
10.1 Rules for scrutiny / review of Answer Sheet	11
10.2 Result format	12
10.3 Validity of NATA-2020 score	12
11.0 Interpretation & Legal Jurisdiction	12
12.0 Weeding Out Rules	12
13.0 Procedure for conduct of Examination	12
APPENDIX I - Syllabus for NATA-2020	13
APPENDIX II - Procedures to be followed in the Examination	15
APPENDIX III - DOs AND DON'Ts	17
APPENDIX IV - Guidelines for filling up the online form	18
APPENDIX V - List of Examination Cities	20
APPENDIX VI - Important Dates	23
APPENDIX VII - Version Control	25

1.0 Introduction

The Council of Architecture (CoA) has been constituted by the Government of India under the provisions of the Architects Act, 1972. This Act was enacted by the Parliament of India and came into force with effect from 1st September, 1972. The Act provides for registration of Architects, standards of education, recognized qualifications and standards of professional conduct and etiquette to be complied with by the architects. The Council of Architecture is vested with the responsibility of maintaining the register of architects on national basis as well as regulating the Architecture education and practice of Architecture profession throughout India. For this purpose, the Government of India has framed Rules and Council has framed Regulations as provided for in the Architects Act, with the approval of Government of India.

Any person desirous of carrying on the profession as 'Architect' must have registration with Council of Architecture. For the purpose of registration, one must undergo the education in accordance with the Council of Architecture Minimum Standards of Architectural Education Regulations and possess the recognized qualification as appended to the Architects Act. The registration with Council of Architecture as an Architect entitles a person to use the title and style of Architect, for practicing the profession of architecture. If any person falsely represents or claims to be registered architect or uses any words or letters to suggest that she/he is an architect or misuses title and style of architect, such acts tantamount to committing of a criminal offence punishable under the Architects Act, 1972.

The practice of profession of an architect is regulated under the Architects (Professional Conduct) Regulations, 1989 (as amended in 2003), which prescribe the professional conduct, ethics and etiquette, conditions of engagement and scale of charges, architectural competition guidelines etc. Pursuant to these Regulations, the Council of Architecture has framed guidelines governing the various aspects of practice. There are about 465 institutions presently imparting architectural education in India leading to recognized qualifications. The standards of education being imparted in these institutions (constituent colleges/departments of universities, deemed universities, affiliated colleges/schools, IITs, NITs and autonomous institutions) are prescribed and monitored by Council of Architecture by way of Regulations and norms & standards prescribed from time to time, which set forth the requirement of eligibility for admission, course duration, standards of staff & accommodation, course content, examination etc.

These minimum standards as prescribed by the Council are required to be maintained by all the institutions. The CoA oversees the maintenance of the standards periodically by way of conducting inspections. The CoA is required to keep the Central Government informed of the standards being maintained by the institutions and is empowered to make recommendations to the Government of India with regard to recognition and/or de-recognition of a qualification. As per the Minimum Standards of Architectural Education Regulations,

qualifying in an aptitude test in Architecture is a mandatory requirement for admission to B.Arch. degree course. Hon'ble Madras High Court vide order dated 21.07.2003 in W.P.No.9707 of 2003, had upheld passing the aptitude test as a mandatory requirement.

2.0 About NATA 2020

National Aptitude Test in Architecture (NATA) is being conducted by CoA since 2006, in terms of the provisions of CoA (Minimum Standards of Architectural Education) Regulations, 1983, published in the Gazette of India. It is implied that a separate aptitude test in Architecture should be conducted and such test should not be combined with the tests for admissions to Engineering, Pharmacy, Medicine and other disciplines. Being the competent authority for fixing the norms and standards for architectural institutions, CoA has the necessary expertise to hold a Common Aptitude Test in Architecture, at national level to provide a single window system for appearing in aptitude test and to facilitate institutions, students and public at large for admission to First year of 5 year B.Arch. Degree Course at all recognized Institutions all over country. The purpose of conducting NATA is to provide a single scheme of examination for holding aptitude test and to facilitate prospective students all over the country to apply for admissions in architecture seats in institutions spread across the country and to avoid appearing in multiple aptitude tests. However, the actual admissions shall be carried out only by the concerned competent authorities of the respective states/institutions based on valid NATA score. The NATA also ensures that the eligibility criteria for admission to five year Bachelor of Architecture (B.Arch.) degree course, as prescribed by CoA and duly approved by the Central Government, are strictly adhered to and followed all over the country in Architectural Institutions.

NATA measures the aptitude of the applicant for specific field of study, i.e. Architecture. The test makes an assessment of drawing and observation skills, sense of proportion, aesthetic sensitivity, Physics, Chemistry and Mathematics at 10+2 level and critical thinking ability that have been acquired by the candidate over the past few years and are related to the specific field of study.

With the objective of attracting a greater number of bright aspirants for studying Architecture and practicing the same as a profession in future, CoA like every year will be conducting NATA-2020 for admission to B.Arch. in the academic session 2020-2021. **NATA-2020 shall be conducted twice a year**, thus giving opportunity to those students who miss out the first test due to some reason or other or wish to improve upon their NATA score in the first test by re-appearing the second test. Both the first and second test will be conducted on a different date as a one-day online examination all over the country. The test shall consist of two parts: Part A is on **Drawing**, which is paper based and Part B comprises of **Multiple Choice Questions (MCQ)** on Physics, Chemistry, Mathematics and general aptitude which is to be answered online. This has been devised as a step towards producing competent architects to serve the society and to build the nation in coming decades,

especially in view of the Govt. of India mission of Smart Cities, Housing for All and Green and Energy efficient Buildings.

3.0 Schedule of Examination

Date & Time of Examination	Subject and Marks of Examination
First NATA Examination	
19.04.2020(Sunday) 10.00 a.m. to 1.15 pm (3 hours and 15 minutes) (Grand Total of 200 marks)	FIRST 135 minutes –Part A (PAPER BASED) TOTAL 125 Marks (10.00 am to 12.15 pm) Drawings in A4 Size paper 3 Questions carrying 35 marks, 35 marks & 55 marks, respectively
	Intermission Period of 15 minutes (12.15 pm to 12.30 pm)
	LAST 45 minutes-Part B (ONLINE) TOTAL 75 Marks (12.30 am to 1.15 pm) PCM (MCQ) 15 Questions X 1.5 mark each General Aptitude & (MCQ) 35 Questions X 1.5 marks each Logical Reasoning
Second NATA Examination	
31.05.2020 (Sunday) 10.00 a.m. to 1.15 pm (3 hours and 15 minutes) (Grand Total of 200 marks)	FIRST 135 minutes-Part A (PAPER BASED) TOTAL 125 Marks (10.00 am to 12.15 pm) Drawings in A4 Size paper 3 Questions carrying 35 marks, 35 marks & 55 marks, respectively
	Intermission Period of 15 minutes (12.15 pm to 12.30 pm)
	LAST 45 minutes-Part B (ONLINE) TOTAL 75 Marks (12.30 am to 1.15 pm) PCM (MCQ) 15 Questions X 1.5 mark each General Aptitude & (MCQ) 35 Questions X 1.5 marks each Logical Reasoning

4.0 Pattern of Questions and Mode of Answering

Part A is to be answered on A4 size drawing sheets and Part B comprises of Multiple Choice Questions (MCQ) to be answered online. Syllabus for NATA-2020 is given in **APPENDIX – I**. Questions and all instructions will be available only in English medium.

The distribution of marks is outlined as follows:

Subject	Distribution of Marks	Total Marks
Part A		
Drawing (3 Questions)	2 x 35	70
	1 x 55	55
Part B		
PCM (15 Questions carrying 1.5 marks each)	15 x 1.5	22.5
General Aptitude & Logical Reasoning (35 Questions carrying 1.5 marks each)	35 x 1.5	52.5
	TOTAL	200

4.1 Drawing Test

Candidate has to attempt three questions within 135 minutes. The drawing aptitude is judged on the following aspects -

- Ability to sketch a given object proportionately and rendering the same in visually appealing manner;
- Visualising and drawing the effects of light on the object and shadows cast on surroundings;
- Sense of perspective drawing;
- Combining and composing given three dimensional elements to form a building or structural form;
- Creating interesting two dimensional composition using given shapes and forms;
- Creating visual harmony using colours in given composition;
- Understanding of scale and proportions;
- Drawing from memory through pencil sketch on themes from day to day experiences.

The Answer to each question in the 'drawing' paper will be examined by more than one examiner independently and the marks will be averaged. The primary emphasis in scoring the drawing section will be on the candidate's drawing, imagination and observation skills. The candidate's sense of proportion and perspective will also be evaluated together with sense for colour and composition.

4.2 Test on PCM and General Aptitude

There shall be 50 questions for which four options will be given. Out of the four options, only one option is correct and the correct response will yield 1.5 marks. There is no negative marking.

5.0 Eligibility Criteria for Candidates

5.1 Taking NATA-2020

NATA 2020 is a qualifying aptitude test for admission into the B. Arch degree program, subject to fulfillment of eligibility criteria prescribed by the Council. The candidates who have passed 10+2 level examination with at least 50% aggregate marks in Physics, Chemistry & Mathematics (PCM) and also at least 50% marks in aggregate of the 10+2 level examination or passed 10+3 Diploma Examination with Mathematics as compulsory subject with at least 50% marks in aggregate, shall be eligible to appear for NATA-2020.

The candidates appearing for 10+2 examination with PCM or 10+3 Diploma with Mathematics in the current year may also provisionally appear for NATA-2020, subject to fulfilling the above criteria.

The candidates belonging to SC, ST, OBC-NCL category or PwD (Persons with disability) shall be provided a relaxation of 5% marks in total aggregate in 10+2 level/10+3 Diploma as well as PCM.

QUALIFYING IN NATA-2020 DOES NOT CONSTITUTE A RIGHT/ GUARANTEE IN FAVOUR OF THE CANDIDATE FOR HIS/HER ADMISSION TO ANY ARCHITECTURE COURSE UNLESS HE/SHE HAS FULFILLED ALL THE PRESCRIBED REQUIREMENTS AS SPECIFIED BY RESPECTIVE COMPETENT AUTHORITIES.

5.2 Admission to First year of B.Arch. course

Only candidates who have the following credentials shall be eligible for admission to B.Arch. Course.

- i. Qualified through the recognized aptitude test in Architecture (NATA or equivalent) in 2020
- ii. Have gone through any of the following curriculum with marks as prescribed below:
 - (a) Secured at least 50% aggregate marks in Physics, Chemistry and Mathematics (PCM) and also at least 50% marks in aggregate of the 10+2 level examination;
 - (b) Or passed 10+3 diploma examination with Mathematics as compulsory subject with at least 50% marks in aggregate.

Candidates may note that no direct lateral admission is allowed at any other year/stage of B.Arch. course based on any qualification.

5.3 Reservations under different categories

Reservation as well as relaxation in qualifying marks for the reserved category for the purpose of admission is a prerogative of the admission/ counselling authority and does not fall under the purview of this examination.

5.4 Help Desk

Email ID :helpdesk.nata2020@gmail.com

Help Desk Number: 9319275557, 7303487773

6.0 Application Procedure

The **First Test will be held on 19.04.2020** and the **Second Test is scheduled to be held on 31.05.2020**.

Appearing in second test is not mandatory and is purely at the discretion of the applicants. Candidates can register themselves either for first test or second or both by filling in the application form appropriately.

Candidates opting to appear in both the first and second test may note that they will be issued with the separate score card for each test. The score card for Second test shall contain the marks secured in First & Second Test and also the best marks secured in either of the Tests as **valid score** for admission to B.Arch. Course.

Application has to be filled up ONLINE at the NATA portal of www.nata.in.

Candidates need to visit the portal and CLICK the requisite link ONLINE APPLICATION NATA– 2020 and thereafter will be directed to the actual application form. The form is interactive in nature and the fields required to be filled up are categorized in different sub-sections. The fields super-scribed with * **MUST be filled up as they are MANDATORY, otherwise the application will NOT get submitted.**

The application form is broadly categorized into three steps: filling of **PERSONAL DETAILS; DOCUMENT UPLOADING & FEE PAYMENT**. Please see **Appendix-IV** for detailed guidelines on fields to be entered at the time of online form filling.

Candidates need to fill in the first part i.e. PERSONAL DETAILS and will thereafter be directed to DOCUMENT UPLOADING. Once the documents are successfully uploaded, the system enters into the FEE PAYMENT. Finally, the candidate must take a printout of CONFIRMATION PAGE generated upon successful fee payment for their own record. **There is no need to send any document by post.**

7.0 Filling up of Application Form

The online filling-up of the Application Form is interactive in nature and online guidance will be available to the candidate while filling up the form. Please refer to **APPENDIX-III** and **APPENDIX-IV** for detailed guidelines on filling up the form.

7.1 Application form

Filling up of fields will be interactive in nature. As soon as the cursor is taken to a certain field, a cursor tip MESSAGE will be shown to the candidate to assist in filling up. In case of difficulty, the HELP icon placed right next to the field will redirect the candidate to that section of the Brochure which deals with the filling up of

the said field. Please note that the **applicant name, father's name, mother's name, postal address and date of birth taken together must be unique for each application.**

At the time of submitting the PERSONAL DETAILS of a candidate, the system will prompt the candidate to enter his email address which shall be used as the user name. The email of the candidate shall be verified by the system by sending a link. The candidate has to choose a **PASSWORD** and keep it as guarded secret for all subsequent entries into their domain. A **SECURITY QUESTION AND ANSWER** will be captured from the candidate by the system at this stage. Candidate has to remember this question-answer pair for prompt retrieval of password in case it is forgotten at later stage. The candidate needs to login into his/her account using his email and password. The login credentials and application number generated by the system shall also be emailed to the candidates at their respective emails. The candidate will need to enter the system subsequently for various reasons as given below:

- Accessing and editing personal information (till going to the document upload stage)
- Uploading of images.
- Performing fee payment through EPG.
- Printing of the Confirmation Page.
- Correction to data if needed.
- Candidate responses that will be hosted in the website.

The candidate has to use his/her email and chosen password for subsequent login to the system for all subsequent accesses to the system. Therefore, it is very important for the candidate to note down password. It is also important to note the **security question** and the answer pair for retrieval of password in case the candidate forgets the chosen password and for future reference.

7.2 Image uploading

All candidates are required to upload the following images:

1. **Recent Passport size Photograph in Colour**
2. **Own Signature**

Documents have to be in **jpg / jpeg format**. The page size of document is to be in A4 format. Following are the details regarding the size and dimension of the documents:

Document	Storage size		Image dimension	
	Minimum	maximum	Height	Width
Photograph	4 KB	100 KB	4.5cm	3.5cm
Signature	1 KB	30 KB	1.5 cm	3.5 cm

7.3 Application Fee Details

Irrespective of his/her gender, a candidate applying for NATA– 2020, either first test or second test, has to pay INRRs.2,000/- (**Rupees Two thousand only**) as application fee, through ONLINE mode.

In case the Candidate wishes to appear for both first and second test, he/she shall deposit Rs 3800/- (**Rupees Three thousand and eight hundred only**) as application fees.

Candidates belonging to SC/ST and PWD category need to deposit Rs 1,700/- (**Rupees One thousand seven hundred only**) for either first or second test and Rs 3,100/- (**Rupees three thousand one hundred only**) for appearing in both the tests through online mode.

Candidates opting to appear from test centres outside the territory of India have to deposit Rs.10,000/- (**Rupees Ten thousand only**) for either first or second test and Rs. 18,000/- (**Rupees Eighteen thousand only**) for appearing in both the tests through online mode.

The candidate, on successfully uploading the PERSONAL DETAILS and DOCUMENTS; will be directed to the webpage containing process of payment of application fee as per the following options.

1. **Payment through EPG:** The candidate has to click “Payment of fee using EPG services”, the system will automatically redirect to available payment gateway page, displayed at the web site. As per the candidate's convenience, he/she may select any of the options to pay the application fee through electronic payment gateway via debit card, credit card or net banking and follow the online instructions to complete the payment process. After successful payment, payment gateway will redirect the candidate to home page that will show the status of fee payment. Upon successful payment, the candidate will be able to print the final "Confirmation Page".

7.4 Confirmation Page (A proof of REGISTRATION)

The **Confirmation Page** is generated upon successful payment of Application Fee. Its generation means that the candidate has been successfully REGISTERED. The candidate should take a printout and preserve the confirmation page for future reference. There is no need to send any document to the Council by post. **A print out of the Confirmation page will not provide admittance to the Test Centre to take the examination.** The candidate has to print the Admit Card when issued online as per the schedule.

7.5 Discrepancy and correction

The candidate is expected to fill up all details correctly, check a preview of the application before submitting the same online. Candidates will be provided only one opportunity to correct their personal details as per Appendix-VI.

8.0 Issue of Admit Card

For each Applicant, an Admit Card will be generated according to the schedule notified indicating the allotted Examination Centre for **NATA –2020** and a downloadable version of the admit card will be published on the respective webpage of the candidate concerned. **An Examination Roll Number will also be generated for each candidate.**

Candidate has to **download the soft copy** of the Admit Card from the website and **has to appear in the examination with a printed hard copy at the concerned Examination Centre indicated** in the downloaded Admit Card along with one original photo identity card- Voter Card/ Pan Card/ Aadhar Card/ Driving Licence. ***Candidates must ensure that the photograph and signature printed on the admit card are not mutilated / distorted / soiled even by accident. Candidates with such mutilated / distorted / soiled admit cards will not be allowed to appear in NATA-2020.***

*Candidates are advised to retain their admit cards carefully in secured place in undamaged condition in all respects as stated above **till the completion of admission procedure.***

All applicants who appear to be prima facie eligible shall be provisionally permitted to sit for NATA-2020. If, after scrutiny at any stage, it is found that an applicant is otherwise ineligible, his/her candidature shall be cancelled even if he/she has appeared in NATA-2020.

The candidature shall also be cancelled if he/she fails to produce any of the required documents in original for fulfilment of eligibility and other criteria as specified earlier during counselling and admission in Universities/ Institutions.

9.0 Allocation of Examination Centre

The allocation of examination centre spread across all state capitals and other selected cities subject to availability of at least 200 students for the particular city/centre. Cities will be based on the choices given by the candidate during filling up the form online. However, it is the discretion of the Council to allocate examination centre for smooth conduct of the test. No request for change of allocated center will be entertained under any circumstances. List of city-wise examination zones is given in **APPENDIX-V.**

10.0 Declaration of Results

10.1 Rules for scrutiny / review of Answer Sheet

After the examination, model answers to MCQ portion (Part B) would be available in public domain. Before publication of results, the response sheets of each candidate will be uploaded along with Part-wise mark(s) secured.

No review will be available for the drawing test (Part A). Further, there will be no provision for post publication scrutiny and /or review and any request after publication of the result will not be entertained.

10.2 Result format

Results will be available in the website www.nata.in which will be announced in various electronic/printing media before declaration of results.

The result sheet will display the following:

1. Marks obtained in each Part of the exam and out of 200
2. Pass/Fail

Qualifying marks for NATA-2020 would be based on the following rules:

1. A minimum of 32 marks out of 125 marks must be secured in Part A (approximately 25%)
2. A minimum of 18 marks out of 75 marks must be secured in Part B (approximately 25%)
3. Overall qualifying marks (out of 200) would be based on post-exam statistics and at the discretion of the Council.

A Candidate will not qualify in NATA-2020 unless he/ she satisfies all three conditions mentioned above.

10.3 Validity of NATA-2020 score

NATA-2020 score shall be **valid only for admission in the session 2020-2021**.

11.0 Interpretation & Legal Jurisdiction

- In case of any dispute regarding interpretation of any clause in this brochure, the interpretation of Council shall be final and binding.
- All matters pertaining to conduct of NATA–2020 shall fall within the jurisdiction of Courts situated in Delhi only.
- The Council will not be a party pertaining to any dispute arising in the process of admission to any course of study through NATA– 2020 in any Institution.

12.0 Weeding Out Rules

The record of the NATA-2020 Examination would be preserved upto 90 days from the date of declaration of results.

13.0 Procedure for conduct of Examination:

Important procedures to be followed during the conduct of examination are specified in **APPENDIX-II**. Please also refer to **APPENDIX-III** for necessary information.

APPENDIX I - Syllabus for NATA-2020

Subject		Questions	Marks	Mode of Exam
Drawing test		03	125	Paper and Pencil
Test on Scientific ability and General Aptitude	PCM	15	22.5	MCQ (Online)
	General Aptitude & Logical Reasoning	35	52.5	MCQ (Online)

DRAWING TEST

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 urban scape and landscape, Common day-to-day life objects like furniture, equipment etc., from memory.

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 Current

Optics- 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

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

MATHEMATICS

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 $m \times n$ ($m \leq 3$, $n \leq 3$) real matrices, operations of addition, scalar multiplication and multiplication of matrices. Transpose of a matrix. Determinant of a square matrix. Properties of determinants (statement only). Minor, cofactor and adjoint of a matrix. Nonsingular matrix. Inverse of a matrix. Finding 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, 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 center 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. Intersection of a line with a circle. Equation of common chord of two intersecting circles.

3-Dimensional Co-ordinate geometry: Direction cosines and direction ratios, 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, derivative 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. 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 and combination: Permutation of n different things taken r at a time ($r \leq n$). Permutation of n things not all different. Permutation with repetitions (circular permutation excluded). Combinations of n different things taken r at a time ($r \leq n$). Combination of n things not all different. Basic properties. Problems involving both permutations and combinations.

Statistics and Probability: Measure of dispersion, mean, variance and standard deviation, frequency distribution. Addition and multiplication rules of probability, conditional probability and Bayes' Theorem, independence of events, repeated independent trials and Binomial distribution.

GENERAL APTITUDE

Objects, texture related to architecture and 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 and Relations: 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.

APPENDIX II - Procedures to be followed in the Examination

1. The candidates will have to follow the time schedule as follows:

- (a) Report to the Examination Center by 8.00 am
- (b) Opening gate to the examination hall at 8.30 am
- (c) Registration of candidate to be completed by 9.45 am
- (d) Closing gate to the examination hall at 9.45 am
- (e) Commencement of examination at 10.00 am

(f) Duration of examination: 10.00 am to 01.15 pm

No candidate will be allowed to enter the examination hall after commencement of examination, i.e. after 10.00 am

2. Candidates must bring with them:

- i. Downloaded Admit Card of NATA-2020.
- ii. Original Proof of Identity- Aadhar/ Passport/ Driving License/ Voter ID.
- iii. Pen, pencils, eraser, color pencils (No water/oil color or crayon). Instruments of any kind including scale are not permitted.
- iv. Candidates may bring with them a cardboard or a clip board on which nothing should be written, so that they have no difficulty in taking the drawing test even if the tables provided in the examination room/hall do have smooth surface.

3. Candidates must show on demand the Admit Card (NATA-2020) for entry to the Examination Hall. A candidate not possessing print out of the downloaded admit card and valid photo identity shall not be allowed to enter in the Examination Hall by the Center-in-Charge.

4. A photograph of the candidate and the biometric will be taken at the Centre before the candidate is indicated his seat for taking the examination. The seat will be randomly allotted to the candidate on completing the procedure.

5. **Candidates found carrying any textual material, printed or written, bits of papers or any other material except those listed under SL.No.-2 inside examination Hall will be debarred from appearing the examination.**

6. **Mobile Phones, Bluetooth devices, Calculators, Slide Rules, Log Tables, Electronic Watches with facilities of Calculator are not allowed in the Examination Hall. Possession of such items during the Examinations may lead to cancellation of candidature.**

7. No candidate, without the special permission of the Centre-in-Charge, will leave his/her seat or Examination Hall until the duration of examination is over.

8. Candidates shall maintain silence during the examination. Any conversation or gesticulation or disturbance in the examination hall shall be deemed as misdemeanor. If a candidate is found adopting unfair means, his/her candidature shall be cancelled and he/she will be liable to be debarred from taking examination either permanently or for a period, to be decided by the Council of Architecture, according to the nature of offence.

If a candidate is found impersonating, his/her candidature will be cancelled outright and the concerned examinee will be handed over to the Police.

APPENDIX III - DOs AND DON'Ts

<u>Dos</u>	
1.	Read the online instructions carefully before filling-in of the Application Form online.
2.	Specify all personal information, address and date of birth correctly.
3.	Remember your application number, security question/answer and password.
4.	Choose the examination zones correctly.
5.	Upload colour photograph and signature of specified size only
6.	Retain a copy of the Confirmation Page.
7.	Follow the time schedule as mentioned in the brochure and Admit Card.
8.	Enter the examination hall only with your Admit Card.
9.	For drawings, use own pencils and coloured pencils.
<u>Don'ts</u>	
1.	Don't divulge your application number, security question/answer and password to anybody.
2.	Don't give wrong/unused mobile number and email id during form fill up. The candidates are advised to ensure that the e- mail address furnished in the application form are active failing which they may face serious problem for any future correspondence.
3.	Don't upload poor quality scanned photograph and signature.
4.	Don't send duly filled in Confirmation Page or any document through post to CoA office.
5.	Don't spoil the hard copy of your downloaded admit card.
6.	For drawings, use of water and oil-based pastels and paints is prohibited.
7.	Don't bring Mobile Phone, Calculator or any other electronic gadget inside the Examination Hall.
8.	Don't bring any instruments including scale inside the Examination hall.
9.	Do not write your name anywhere on the Answer booklet for Part A (Drawing Test)

APPENDIX IV - Guidelines for filling up the online form

Sl.No.	Description of Field	Value	Remarks
A. Personal Information –as registered in Class 12 or equivalent examination			
1	Candidate's Full Name	Enter name	Max 46 character; as per school leaving record don't use prefixes like Sri, Mr, Ms, Dr, Late etc.
2	Father's Name	Enter name	Max 46 character; as per school leaving record don't use prefixes like Sri, Mr, Ms, Dr, Late etc.
3	Mother's Name	Enter name	Max 46 character; as per school leaving record don't use prefixes like Sri, Mr, Ms, Dr, Late etc.
4	Date of Birth	DD/MM/YYYY	Exactly as recorded in High/Secondary School Leaving Certificate
5	Gender	---Select---	Male (M) / Female (F) / Transgender (T)
6	Category	---Select---	General / SC / ST / OBC-NCL
7	Person with disability	YES/NO	Auto-filled with NO, may be changed to YES, if appropriate
8	Type of disability	---Select---	Visual Acuity / One eyed vision / Physically challenged/ Others
9	Place of Residence	---Select---	Rural / Urban / SubUrban
10	Nationality	---Select---	Indian / OCI / PIO / Foreign
11	Aadhar Number	--- Enter ---	This field is not Mandatory
B. Choice of examination Centre			
12	Choice of city of Examination	-- 1st Choice-- -- 2nd Choice-- -- 3rd Choice--	Three choices to be selected mandatorily from the entire list of examination cities nation-wide (see Appendix-V for the complete list)
C. Choice of First Test & Second Test			
	Choice of Examination	First Test (19.04.2020) Second Test (31.05.2020)	Candidates may opt for the first or second examination or both as per their choice. Appearing in second test is not mandatory for the applicants of first test. However, candidates desirous of appearing in either of the tests, can exercise their option by filling in the application appropriately.

D. Details of education - Class X or equivalent			
13	Education Qualification	--- Fixed ---	Class 10th or equivalent
14	Pass Status	--- Fixed ---	Passed
15	Course/Stream name	--- Fixed ---	High School
16	Board	---Select---	Select from drop down list
17	Year of passing	---Select---	Select from drop down list
18	Obtained Marks (Subjectwise)	Enter value	Mandatory
19	Total Marks	Enter value	Mandatory
20	% Marks	---	Auto calculate
21	Roll No/Enroll No	Enter value	Enter correct roll no as per Class X records
22	Institute Name and address	100 character	Enter name and address of school of study in Class X
23	Pin Code	6 character	Pin code of school address
E. Details of education - Post X			
24	Education Qualification	--- Fixed ---	Class 12th or equivalent
25	Pass Status	--- Select ---	Passed / Appearing
26	Course/Stream name	--- Select ---	10+2 /10+3 Diploma
27	Board/University Name	---Select---	Select from drop down list
28	Year of passing	---Select---	Conditional – if Passed, Select from drop down list
29	Obtained Marks	Enter value	Conditional – if Passed, enter aggregate
30	Total Marks	Enter value	Conditional – if Passed
31	% Marks	---	Auto calculate – if Passed
32	Roll No/Enroll No	Enter value	Conditional – if Passed
33	Institute Name and address	100 character	Enter name and address of school of study in Class 10+2/10+3 Diploma Examination Mandatory
34	Pin Code	6 character	Pin code of school address - Mandatory
F. Communication address			
35	Address of residence	50 characters	Enter full address

36	State of Domicile	---Select---	All states and union territories to be shown
37	District of Domicile	---Select---	Select from drop down menu
38	Pin Code	6 character	Mandatory
39	Email Id	Enter valid id	Please enter valid – to be used for communication
40	Mobile no	Enter valid no	Please enter valid – to be used for communication
41.	Land line no	Enter valid no	Optional

G. Secure application before final submission

42	Choose password	Enter as per password policy	1. Password must be 8 to 13 characters long. 2. Password must have at least one Upper case, one lower case alphabet and one numeric value and at least one special characters such as !, @, #, \$, %, ^, &, *, - 3. New Password cannot be identical to any of the previous three passwords.
43	Confirm password	Enter same as above	Has to match with the above entry and noted down for all future entries into the system
44	Security question	---Select---	Select from options in drop down menu
45	Security answer	Enter response	Please enter relevant value and note down – used for future retrieval of forgotten password

The application must be reviewed before final submission. Once application is submitted, an Application Number (8digit) gets generated. It must be noted down along with password and security question-answer – as these are all important for subsequent logins – to upload images and submit fees. Please note that system will not allow to submit a duplicate form by any candidate – with same name, father name, mother name and date of birth. Candidates intending to make any correction in data filled-up by them in their respective application are allowed to do so through correction window to be made available only during the designated period. If the candidate furnishes false information his/ her candidature would be liable to be cancelled and/or NATA-2020score would be treated void.

APPENDIX V - List of Examination Cities

Sl.No	State	City
1	Andaman and Nicobar	Port Blair
2	Andhra Pradesh	Guntur
3		Kakinada
4		Kurnool
5		Rajahmundry
6		Tirupathi
7		Vijayawada
8		Visakhapatnam

9	Arunachal Pradesh	Itanagar
10	Assam	Dibrugarh
11		Guwahati
12		Silchar
13	Bihar	Bhagalpur
14		Gaya
15		Muzaffarpur
16		Patna
17	Chandigarh	Chandigarh
18	Chhattisgarh	Bhilai
19		Bilaspur
20		Raipur
21	Delhi	Delhi
22	Goa	Panaji
23	Gujarat	Ahmedabad
24		Gandhinagar
26		Rajkot
27		Surat
28		Vadodara
29	Haryana	Ambala
30		Faridabad
31		Hisar
32		Gurgaon
33		Sonepat
34	Himachal Pradesh	Hamirpur
35		Shimla
36	Jammu and Kashmir	Jammu
37		Srinagar
38	Jharkhand	Bokaro Steel City
39		Dhanbad
40		Hazaribagh
41		Jamshedpur
42		Ranchi
43	Karnataka	Bengaluru
44		Gulbarga
45		Hubli
46		Mangalore
47		Mysore
48		Udupi
49	Kerala	Kannur
50		Kozhikode
51		Ernakulam
52		Kottayam

53		Thrissur
54		Trivandrum
55	Madhya Pradesh	Bhopal
56		Gwalior
57		Indore
58		Jabalpur
59		Ujjain
60	Maharashtra	Amravati
61		Ahmednagar
62		Aurangabad
63		Jalgaon
64		Kolhapur
65		Mumbai
66		Nagpur
67		Navi Mumbai
68		Nashik
69		Pune
70	Manipur	Imphal
71	Meghalaya	Shillong
72	Mizoram	Aizawl
73	Nagaland	Dimapur
74		Kohima
75	Odisha	Bhubaneswar
76		Cuttack
77		Rourkela
78		Sambalpur
79	Puducherry	Puducherry
80	Punjab	Amritsar
81		Bhatinda
82		Jalandhar
83		Ludhiana
84		Mohali
85		Patiala
86	Rajasthan	Ajmer
87		Bikaner
88		Jaipur
89		Jodhpur
90		Kota
91		Udaipur
92	Sikkim	Gangtok
93	Tamil Nadu	Chennai
94		Coimbatore
95		Madurai

96		Salem
97		Tiruchirappalli
98		Vellore
99	Telangana	Hyderabad
100		Warangal
101	Tripura	Agartala
102	Uttar Pradesh	Agra
103		Allahabad
104		Bareilly
105		Ghaziabad
106		Greater Noida
107		Jhansi
108		Kanpur
109		Lucknow
110		Moradabad
111		Meerut
112		Muzaffarnagar
113		Noida
114		Varanasi
115	Uttarakhand	Dehradun
116		Haldwani
117		Roorkee
118	West Bengal	Asansol
119		Durgapur
120		Howrah
121		Kolkata
122		Siliguri
123	Dubai*	Dubai

Note: Final retention of city depends on availability/requests.

- (*)The candidates applying for exam centre in Dubai will not be given any choice for test centres.
- Dubai cannot be chosen as second or third choice of exam city.

APPENDIX VI - Important Dates

For First Test Scheduled to be held on 19.04.2020

Sl No	Activity	Date (with time)
1	Availability of information in the public domain	From 1 st February 2020
2	Start of Online form fill-up	1 st February 2020

3	End of registration	16 th March 2020 (11:59 PM)
4	Image uploads allowed till	20 th March 2020 (11:59 PM)
5	Fee payment allowed till	20 th March 2020 (11:59 PM)
6	Confirmation page printing available till	23 rd March 2020 (11:59 PM)
7	Candidate Correction window	21 th March 2020 (10:30 AM) to 23 rd March 2020 (11:59 PM)
8	Publication of Downloadable Admit Card	4 th April 2020
9	Date and Time of Examination	19 th April 2020 (10 AM to 01:15 PM)
10	Publication of Results	8 th May 2020

For Second Test Scheduled to be held on 31.05.2020

Sl No	Activity	Date (with time)
1	Availability of information in the public domain	From 1 st February, 2020
2	Start of Online form fill-up	1 st February, 2020
3	End of registration	4 th May 2020 (11:59 PM)
4	Image uploads allowed till	8 th May 2020 (11:59 PM)
5	Fee payment allowed till	8 th May 2020 (11:59 PM)
6	Confirmation page printing available till	11 th May 2020 (11:59 PM)
7	Candidate Correction window	9 th May 2020 (10:30 AM) to 11 th May 2020 (11:59 PM)
8	Publication of Downloadable Admit Card	21 st May 2020
9	Date and Time of Examination	31 st May 2020 (10 AM to 01:15 PM)
10	Publication of Results	14 th June 2020

Note: All schedules are subject to change under unavoidable circumstances

APPENDIX VII - Version Control

V1.0: (released on 01.02.2020) This is the first version, generated by compiling information from previous NATA brochure, procedures followed for exams in general.

Committed to

Building **green** for the future



“The principle of common but differentiated responsibilities is the bedrock of our enterprise for a sustainable world” — Shri Narendra Modi, Hon’ble Prime Minister of India