A.A.SHAH's

YOUNG IAS

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NDA

PROSPECTUS

A. A. Shah's Young IAS is a branch of **A. A. Shah's IAS Institute.** After having vast experience in coaching for Civil Services Examination of UPSC (Union Public Service Commission) and in view of the research in this field, **A. A. Shah's Young IAS** has formed several courses to train the students to shine in their academic and competitive career. The courses are structured as per the age, academic standard and interest of the students to cultivate the required quality in young students, who aspire their career in Civil Services, Defence Services, SSC-CGL, Banking etc. **A. A. Shah's Young IAS** prepares the young students from 6 years onwards, or competitive and scholarship examinations.

It is also realized that the students who aspire to join defence services; Indian Army, Indian Air Force, Indian Navy are directionless and as such due to lack of information and guidance can't fulfill their wish to serve the nation. Hence, **A. A. Shah's Young IAS** has 'Defence Section' for defence services examinations coaching.

What is NDA?

- The National Defence Academy (NDA) is the Joint Services Academy of the Indian Armed Forces.
- Cadets of the three services, The Army, The Navy, The Air Force are trained together. Later they go on to pre-commissioning training in their respective service academies.

The NDA campus is located about 17 km south-west of Pune city, North-wWest of Khadakwasla Lake. It spans 7,015 acres (28.39 km2) of the 8,022 acres (32.46 km2) donated by the Government of the former Bombay State. The site was chosen for being on a lake shore, the suitability of the neighboring hilly terrain, proximity to the Arabian Sea and other military establishments, an operational air base nearby at Lohegaon as well as the salubrious climate. The existence of an old combined-forces training centre and a disused mock landing ship, HMS Angostura, on the north bank of the Khadakwasla lake which had been used to train troops for amphibious landings, lent additional leverage for the selection of the site. Aptly, NDA is also located in the hunting grounds of the legendary Shivaji, with the Sinhagad Fort as a panoramic backdrop.

What is Permanent Commission (PC)?

A Permanent Commission means a career till retirement. Entry for a Permanent Commission is either through the National Defence Academy (NDA) at Khadakwasla, Pune or the Indian Military Academy (IMA) at Dehradun.

How to get admission in NDA?

To get admission in NDA, the will be written exam, interview and medical test;

- NDA Examination conducted by UPSC.
- 5- Days Service Selection Board (SSB) Interview.
- Medical Tests

What selected candidates get at NDA?

The selected candidates for the three services viz, Army, Navy and Air Force gets:

- Preliminary training both academic and physical for a period of 3 years at the National Defence Academy which is an Inter-Service Institution. The training during the first two and half years is common to the cadets of three wings.
- All the cadets on passing out will be awarded degrees from Jawaharlal Nehru University Delhi as under:-
  (a) Army Cadets - B.Sc. / B.Sc. (Computer) / B.A
  (b) Naval Cadets - B.Tech Degree*
  (c) Air Force Cadets - B.Tech Degree*

Note* :

All the cadets undergoing B.Sc. / B.Sc.(Computer) / BA Degree programme shall be awarded the degree on the successful completion of Academics, Physical and Service Training at NDA. All the cadets undergoing B.Tech programme shall be awarded the B.Tech degree on the subsequent Pre Commissioning Training Academies / Institutions / Ships / Air Craft. The selected candidates of the Naval Academy will be given preliminary training both academic and physical, for a period of 04 years at Indian Naval Academy, Ezhimala. The cadets of 10+2 Cadet Entry Scheme will be awarded a B.Tech Degree on successful completion of training.

- On passing out from the National Defence Academy,
  Army Cadets go to the Indian Military Academy, Dehra Dun,
  Naval Cadets to Indian Naval Academy, Ezhimala and
  Air Force cadets to AFA, Hyderabad.
- At the I.M.A. Army Cadets are known as Gentlemen Cadets and are given strenuous military training for a period of one year aimed at turning officer capable of leading infantry Sub-units. On successful completion of training Gentlemen Cadets are granted Permanent Commission in the rank of Lt, subject to being medically fit in "SHAPE" one.
- The Naval cadets are selected for the Executive Branch of the Navy, on passing out from the National Defence Academy candidates are given further training at Indian Naval Academy, Ezhimala for a period of one year on successful completion of which they are promoted to the rank of Sub Lieutenants.
- Air Force Cadets receive flying training for a period of 1½ years. However, at the end of 1 year of training they are given provisional Commission in the rank of Flying Officer. After successful completion of further training of six months they are absorbed as permanent commissioned officers on probation for a period of one year.
- Apart from providing graduation degrees, NDA has the finest infrastructure for professional training. Candidates get phenomenal opportunities to develop their personality and cultivate new interests. There are 31 extra-curricular activities to choose from, such as aero-modeling, golf, gliding, sailing, wind surfing, astronomy, photography and many more.

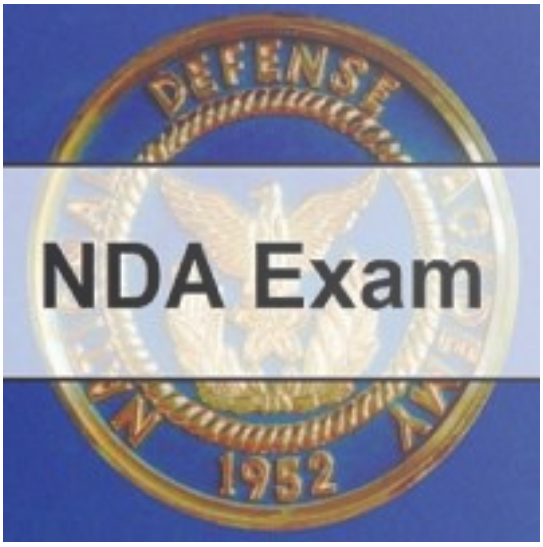
What is NDA Examination?

The **National Defense Academy Examination** is meant to be organized by the **Union Public Service Commission** *(**UPSC**)* for recruitment into the Indian Army, Indian Navy, and Indian Air Force and for Indian Naval Academy Course. NDA examination is conducted by UPSC twice a year (usually in April & September).

(i) Exam Pattern:

(a) Written Examination:

The subjects of the written examination, the time allowed and the maximum marks allotted to each subject will be as follows:—



Subject	Topics				Maximum Marks	Duration
Maths					300	2 ½ Hours
General Ability Test	Part 'A'	English		Marks 200	600	2 ½ Hours
	Part 'B'	General Knowledge		Marks 400		
	Section 'A'	Physics	Marks 100			
	Section 'B'	Chemistry	Marks 60			
	Section 'C'	General Science	Marks 40			
	Section 'D'	History, Freedom Movement etc.	Marks 80			
	Section 'E'	Geography	Marks 80			
	Section 'F'	Current Events	Marks 40			

Question Pattern: Objective (Multiple Choice Questions - MCQ)
Marking Pattern: **33.33% Negative Marking**; For each wrong answer 1/3 of the marks assigned to the question shall be deducted.
Language: The question papers (Test Booklets) of Mathematics and part B of General Ability Test will be set bilingually in Hindi as well as English.

(b) Intelligence and Personality Test

The SSB procedure consists of two stage Selection process - stage I and stage II. Only those candidates who clear the stage I are permitted to appear for stage II. The details are :

(a) Stage I comprises of Officer Intelligence Rating (OIR) tests are Picture Perception * Description Test (PP&DT). The candidates will be shortlisted based on combination of performance in OIR Test and PP&DT.
(b) Stage II Comprises of Interview, Group Testing Officer Tasks, Psychology Tests and the Conference. These tests are conducted over 4 days.

The personality of a candidate is assessed by three different assessors viz. The Interviewing Officer (IO), Group Testing Officer (GTO) and the Psychologist. There are no separate weightage for each test. The marks are allotted by assessors only after taking into consideration the performance of the candidate holistically in all the test. In addition, marks for Conference are also allotted based on the initial performance of the Candidate in the three techniques and decision of the Board. All these have equal weightage.

(ii) Exam Syllabus:

PAPER-I
MATHEMATICS

ALGEBRA

Concept of set, operations on sets, Venn diagrams. De Morgan laws, Cartesian product, relation, equivalence relation.

Representation of real numbers on a line. Complex numbers—basic properties, modulus, argument, cube roots of unity. Binary system of numbers. Conversion of a number in decimal system to binary system and 17 vice-versa. Arithmetic, Geometric and Harmonic progressions. Quadratic equations with real coefficients. Solution of linear inequations of two variables by graphs. Permutation and Combination. Binomial theorem and its applications. Logarithms and their applications.

MATRICES AND DETERMINANTS :

Types of matrices, operations on matrices. Determinant of a matrix, basic properties of determinants. Adjoint and inverse of a square matrix, Applications-Solution of a system of linear equations in two or three unknowns by Cramer's rule and by Matrix Method.

TRIGONOMETRY :

Angles and their measures in degrees and in radians. Trigonometrical ratios. Trigonometric identities Sum and difference formulae. Multiple and Sub-multiple angles. Inverse trigonometric functions. Applications-Height and distance, properties of triangles.

ANALYTICAL GEOMETRY OF TWO AND THREE DIMENSIONS:

Rectangular Cartesian Coordinate system. Distance formula. Equation of a line in various forms. Angle between two lines. Distance of a point from a line. Equation of a circle in standard and in general form. Standard forms of parabola, ellipse and hyperbola. Eccentricity and axis of a conic. Point in a three dimensional space, distance between two points. Direction Cosines and direction ratios. Equation two points. Direction Cosines and direction ratios. Equation of a plane and a line in various forms. Angle between two lines and angle between two planes. Equation of a sphere.

DIFFERENTIAL CALCULUS :

Concept of a real valued function–domain, range and graph of a function. Composite functions, one to one, onto and inverse functions. Notion of limit, Standard limits—examples. Continuity of functions—examples, algebraic operations on continuous functions. Derivative of function at a point, geometrical and physical interpretation of a derivative—applications. Derivatives of sum, product and quotient of functions, derivative of a function with respect to another function, derivative of a composite function. Second order derivatives. Increasing and decreasing functions. Application of derivatives in problems of maxima and minima.

INTEGRAL CALCULUS AND DIFFERENTIAL EQUATIONS :

Integration as inverse of differentiation, integration by substitution and by parts, standard integrals involving algebraic expressions, trigonometric, exponential and hyperbolic functions. Evaluation of definite integrals—determination of areas of plane regions bounded by curves— applications.

Definition of order and degree of a differential equation, formation of a differential equation by examples. General and particular solution of a differential equations, solution of first order and first degree differential equations of various types—examples. Application in problems of growth and decay.

VECTOR ALGEBRA :

Vectors in two and three dimensions, magnitude and direction of a vector. Unit and null vectors, addition of vectors, scalar multiplication of a vector, scalar product or dot product of two vectors. Vector product or cross product of two vectors. Applications—work done by a force and moment of a force and in geometrical problems.

STATISTICS AND PROBABILITY :

Statistics: Classification of data, Frequency distribution, cumulative frequency distribution—examples. Graphical representation—Histogram, Pie Chart, frequency polygon—examples. Measures of Central tendency—Mean, median and mode. Variance and standard deviation—determination and comparison. Correlation and regression.

Probability : Random experiment, outcomes and associated sample space, events, mutually exclusive and exhaustive events, impossible and certain events. Union and Intersection of events. Complementary, elementary and composite events. Definition of probability—classical and statistical— examples. Elementary theorems on probability—simple problems. Conditional probability, Bayes' theorem—simple problems. Random variable as function on a sample space. Binomial distribution, examples of random experiments giving rise to Binominal distribution.

PAPER-II
GENERAL ABILITY TEST

Part 'A'—ENGLISH

The question paper in English will be designed to test the candidate's understanding of English and workman like use of words. The syllabus covers various aspects like : Grammar and usage, vocabulary, comprehension and cohesion in extended text to test the candidate's proficiency in English.

Part 'B'—GENERAL KNOWLEDGE

The question paper on General Knowledge will broadly cover the subjects : Physics, Chemistry, General Science, Social Studies, Geography and Current Events.

The syllabus given below is designed to indicate the scope of these subjects included in this paper. The topics mentioned are not to be regarded as 19 exhaustive and questions on topics of similar nature not specifically mentioned in the syllabus may also be asked. Candidate's answers are expected to show their knowledge and intelligent understanding of the subject.

Section 'A' (Physics)

Physical Properties and States of Matter, Mass, Weight, Volume, Density and Specific Gravity, Principle of Archimedes, Pressure Barometer.

Motion of objects, Velocity and Acceleration, Newton's Laws of Motion, Force and Momentum, Parallelogram of Forces, Stability and Equilibrium of bodies, Gravitation, elementary ideas of work, Power and Energy. Effects of Heat, Measurement of Temperature and Heat, change of State and Latent Heat, Modes of transference of Heat. Sound waves and their properties, Simple musical instruments. Rectilinear propagation of Light, Reflection and refraction. Spherical mirrors and Lenses, Human Eye. Natural and Artificial Magnets, Properties of a Magnet, Earth as a Magnet.

Static and Current Electricity, conductors and Non-conductors, Ohm's Law, Simple Electrical Circuits, Heating, Lighting and Magnetic effects of Current, Measurement of Electrical Power, Primary and Secondary Cells, Use of X-Rays. General Principles in the working of the following:

Simple Pendulum, Simple Pulleys, Siphon, Levers, Balloon, Pumps, Hydrometer, Pressure Cooker, Thermos Flask, Gramophone, Telegraphs, Telephone, Periscope, Telescope, Microscope, Mariner's Compass; Lightening Conductors, Safety Fuses.

Section 'B' (Chemistry)

Physical and Chemical changes. Elements, Mixtures and Compounds, Symbols, Formulae and simple Chemical Equations, Law of Chemical Combination (excluding problems). Properties of Air and Water.

Preparation and Properties of Hydrogen, Oxygen, Nitrogen and Carbondioxide, Oxidation and Reduction. Acids, bases and salts. Carbon— different forms. Fertilizers—Natural and Artificial. Material used in the preparation of substances like Soap, Glass, Ink, Paper, Cement, Paints, Safety Matches and Gun-Powder. Elementary ideas about the structure of Atom, Atomic Equivalent and Molecular Weights, Valency.


Section 'C' (General Science)

Difference between the living and non-living. Basis of Life—Cells, Protoplasms and Tissues. Growth and Reproduction in Plants and Animals. Elementary knowledge of Human Body and its important organs. Common Epidemics, their causes and prevention.

Food—Source of Energy for man. Constituents of food, Balanced Diet. The Solar System—Meteors and Comets, Eclipses. Achievements of Eminent Scientists.

Section 'D' (History, Freedom Movement etc.)

A broad survey of Indian History, with emphasis on Culture and Civilisation. Freedom Movement in India. Elementary study of Indian Constitution and Administration. Elementary knowledge of Five Year Plans of India. Panchayati Raj, Co-operatives and Community Development. Bhoodan, Sarvodaya, National Integration and Welfare State, Basic Teachings of Mahatma Gandhi.

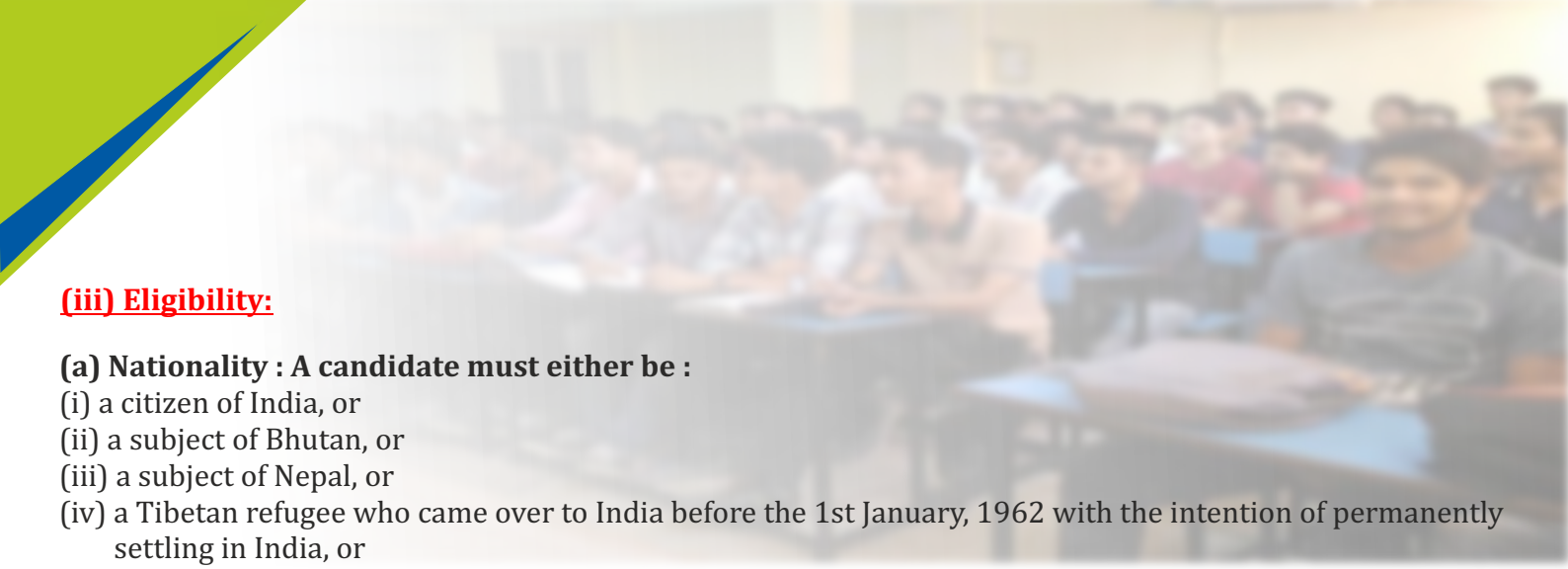
Forces shaping the modern world; Renaissance, Exploration and Discovery; War of American Independence. French Revolution, Industrial Revolution and Russian Revolution. Impact of Science and Technology on Society. Concept of one World, United Nations, Panchsheel, Democracy, Socialism and Communism. Role of India in the present world.

Section 'E' (Geography)

The Earth, its shape and size. Lattitudes and Longitudes, Concept of time. International Date Line. Movements of Earth and their effects. Origin of Earth. Rocks and their classification; Weathering—Mechanical and Chemical, Earthquakes and Volcanoes. Ocean Currents and Tides Atmosphere and its composition; Temperature and Atmospheric Pressure, Planetary Winds, Cyclones and Anti-cyclones; Humidity; Condensation and Precipitation; Types of Climate, Major Natural regions of the World. Regional Geography of India—Climate, Natural vegetation. Mineral and Power resources; location and distribution of agricultural and Industrial activities. Important Sea ports and main sea, land and air routes of India. Main items of Imports and Exports of India.

Section 'F' (Current Events)

Knowledge of Important events that have happened in India in the recent years. Current important world events. Prominent personalities—both Indian and International including those connected with cultural activities and sports.



(iii) Eligibility:

(a) Nationality : A candidate must either be :
(i) a citizen of India, or
(ii) a subject of Bhutan, or
(iii) a subject of Nepal, or
(iv) a Tibetan refugee who came over to India before the 1st January, 1962 with the intention of permanently settling in India, or
(v) a person of Indian origin who has migrated from Pakistan, Burma, Sri Lanka and East African Countries of Kenya, Uganda, the United Republic of Tanzania, Zambia, Malawi, Zaire and Ethiopia or Vietnam with the intention of permanently settling in India.

United Republic of Tanzania, Zambia, Malawi, Zaire and Ethiopia or Vietnam with the intention of permanently settling in India.

Provided that a candidate belonging to categories (ii), (iii), (iv) and (v) above shall be a person in whose favour a certificate of eligibility has been issued by the Government of India.

Certificate of eligibility will not, however, be necessary in the case of candidates who are Gorkha subjects of Nepal.

(b) Age Limits, Sex and Marital Status :

Only unmarried male candidates **born not earlier than 02nd January, 2000 and not later than 1st January, 2003** (For NDA/NA- II 2018) are eligible. The date of birth accepted by the Commission is that entered in the Matriculation or Secondary School Leaving Certificate or in a certificate recognised by an Indian University as equivalent to Matriculation or in an extract from a Register of Matriculates maintained by a University which must be certified by the proper authority of the University or in the Higher Secondary or an equivalent examination certificates. These certificates are required to be submitted only after the declaration of the result of the written part of the examination. No other document relating to age like horoscopes, affidavits, birth extracts from Municipal Corporation, service records and the like will be accepted. The expression Matriculation/Higher Secondary Examination Certificate in this part of the instruction includes the alternative certificates mentioned above.

NOTE 1 : Candidates should note that only the date of birth as recorded in the Matriculation/Higher Secondary Examination Certificate available or an equivalent certificate on the date of submission of applications will be accepted by the Commission and no subsequent request for its change will be considered or granted.

NOTE 2 : Candidates should also note that once a date of birth has been claimed by them and entered in the records of the Commission for the purpose of admission to an Examination, no change will be allowed subsequently or at any subsequent examination on any ground whatsoever.

NOTE 4 : Candidates must undertake not to marry until they complete their full training. A candidate who marries subsequent to the date of his application though successful at this or any subsequent Examination will not be selected for training. A candidate who marries during training shall be discharged and will be liable to refund all expenditure incurred on him by the Government.

(c)Educational Qualifications:

(i) For Army Wing of National Defence Academy :—
12th Class pass of the 10+2 pattern of School Education or equivalent examination conducted by a State Education Board or a University.

(ii) For Air Force and Naval Wings of National Defence Academy and for the 10+2 Cadet Entry Scheme at the Indian Naval Academy :—12th Class pass of the 10+2 pattern of School Education or equivalent with Physics and Mathematics conducted by a State Education Board or a University.

Candidates who are appearing in the 12th Class under the 10+2 pattern of School Education or equivalent examination can also apply for this examination. Such candidates who qualify the SSB interview but could not produce Matriculation/10+2 or equivalent certificate in original at the time of SSB interview should forward duly self attested Photocopies to 'Directorate General of Recruiting, Army HQ, West Block.III, R.K. Puram, New Delhi110066' and for Naval Academy candidates to 'Naval Headquarters, DMPR, OI&R Section, Room No. 204, 'C' Wing, Sena Bhavan, New Delhi-110011' failing which their candidature will be cancelled. All other candidates who have produced their Matriculation and 10+2 pass or equivalent certificates in original at the time of attending the SSB interview and have got the same verified by the SSB authorities are not required to submit the same to Army HQ or Naval HQ as the case may be. Certificates in original issued by the Principals of the Institutions are also acceptable in cases where Boards/Universities have not yet issued certificates. Certified true copies/photostate copies of such certificates will not be accepted. In exceptional cases the Commission may treat a candidate, who does not possess any of the qualifications prescribed in this rule as educationally qualified provided that he possesses qualifications, the standard of which in the opinion of the Commission, justifies his admission to the examination.

NOTE 1 : Candidates appearing in the 11th class exam are not eligible for this examination.

NOTE 2 : Those candidates who have yet to qualify in the 12th class or equivalent examination and are allowed to appear in the UPSC Examination should note that this is only a special concession given to them. They are required to submit proof of passing the 12th class or equivalent examination by the prescribed date and no request for extending this date will be entertained on the grounds of late conduct of Board/University Examination, delay in declaration of results or any other ground whatsoever.

NOTE 3 : The candidates should exercise due care while entering their date of birth in the respective column of the Online Application Form for the Examination. If on verification at any subsequent stage any variation is found in their date of birth from the one entered in their Matriculation or equivalent Examination certificate, disciplinary action will be taken against them by the Commission under the Rules.

NOTE 4 : Those candidates who have failed INSB/PABT earlier are not eligible for Air Force.

(d) Physical Standards:

Candidates must be physically fit according to physical standards for admission to National Defence Academy and Naval Academy Examination (II), 2018 as per guidelines given in Appendix-IV.

(e) A candidate who has resigned or withdrawn on disciplinary grounds from any of the training academies of Armed Forces is not eligible to apply.

The basic relevant information regarding entry for Permanent Commission is provided hereunder in a tabular form;

Name of Exam	Eligibility	Qualification	Written Exam	SSB	Training Academy
NDA (by UPSC)	16 ½ to 19 Unmarried male	For Army 12th For Air Force & Navy 12th with Physics and Maths	Yes	Yes	NDA , Khadakwasla, Pune

(iv) Exam Schedule:

NDA/NA-II (2018)

Date of Notification	06.06.2018
Last Date for Reciept of Application	02.07.2018
Date of Commencement of Exam	09.09.2018
Duration of Exam	1 Day

COURSE (NDA/NA) – II 2018)

Exam Date: September 2018

Course Duration: May 2018 to August 2018
Lecture - 3 hours 5 days a week
and Test Series on regular basis
(Note: Schedule subject to change without prior intimation)

Course Coverage:

Subject	Marks
MATHEMATICS	300
GENERAL ABILITY TEST	600
Total	900

(Lectures with Test series)

Fees: Rs 30,000/-

What are the addresses of the branches of A A Shah's Young IAS?

FORT

Guru Kripa, Bahubali, Cawasji Patel Street, Behind Meher House, Between Hutatma Chowk & Horniman Circle, Fort, Mumbai - 400001.
Mob: +91 9029098746,
Telephone: 022- 2204 4777

DADAR

221, 1st Floor, Gohartaj, Dr. B. A. Road, Near Hindmata Flyover Bridge (Northern end), Dadar (East), Mumbai – 400014.
Mob: +91 9029088746,
Telephone: 022- 2415 4777

THANE

Paranjpe Udhyog Bhavan, 3rd Floor, Opp Shiv Sagar Restaurant, Station Road,Thane (West) – 400 601.
Mob: +91 8652 744 447,
Telephone: 022-2540 4777

NERUL

Chandrai Arcade, 1st Floor, Sector 20, Opp. Nerul Railway Station, Above Welcome Restaurant, Nerul (West), Navi Mumbai – 400 706.
Mob: +91 9773388746
Telephone: 022-2771 4477