



NDA

The Union Public Service Commission has released the NDA Syllabus 2024 through an official notification. Candidates should review the UPSC NDA Syllabus to know the topics for the upcoming exam. The NDA syllabus 2024 consists of two subjects:

Mathematics and General

Ability Test. The NDA 2024

syllabus includes only objective-type questions. Along with the syllabus, candidates should also check the NDA Exam Pattern 2024 to understand the exam requirements and format. Read the complete article to see the NDA Syllabus 2024, the NDA exam pattern, marking scheme, etc.



NDA Syllabus 2024

The UPSC NDA Syllabus 2024 consists of two main papers: Mathematics and General Ability Test (GAT). Candidates need to have a clear understanding of the NDA syllabus to prepare effectively. Familiarizing themselves with the NDA syllabus 2024 helps them organize their study schedule. The exam covers GAT, including History, General Knowledge, Current Affairs, English, Science, and Geography, alongside Mathematics, covering topics at the 10+2 level. GAT carries more weightage (600 marks) compared to Maths (300 marks).

Candidates who meet the written exam's cut-off proceed to the SSB/Interview stage. The NDA syllabus includes 120 Maths and 150 GAT questions, encompassing essential subjects. Understanding the NDA syllabus helps in planning study sessions efficiently. This article provides detailed insights into the NDA syllabus 2024.

NDA Syllabus 2024: Overview



Candidates are advised to thoroughly review the NDA Syllabus and Exam Pattern before starting their preparation. The official syllabus is mentioned in the NDA Notification 2024. Below is a summary of the NDA Syllabus 2024, providing candidates with essential guidance for their exam preparation.

Parameters Details

Name of the Exam National Defence Academy Exam or NDA exam

Exam Conducting Body Union Public Service Commission, UPSC

Frequency of NDA Exam Two times a year (NDA 1 & NDA 2)

Selection Process Written, Intelligence, Personality Test/SSB

Mode of exam Offline (Pen and Paper mode)

Total Papers in NDA Exam Mathematics

General Ability Test (GAT)

Total Marks for NDA Exam Total: 900 Marks

Mathematics: 300 Marks

GAT: 600 Marks

Total No. of Questions Mathematics: 120

GAT: 150

Negative Marking Mathematics: -0.83

GAT: -1.33 marks

Exam Duration Mathematics: 2 Hours 30 Minutes

GAT: 2 Hours 30 Minutes

Official Website upsc.gov.in

NDA Exam Pattern 2024



The NDA examination consists of two stages: the written examination and the SSB (Services Selection Board) interview. Once the NDA Cut Off is announced, successful candidates advance to the SSB interview round. The NDA Written Exam Pattern is given below. The total duration of the NDA examination is 5 hours, during which candidates will encounter objective-type questions spanning different subjects.

Subject	Duration	Maximum Marks
Mathematics	2½ Hours	300
General Ability Test	2½ Hours	600
TOTAL		900
SSB Test/Interview		900

NDA Exam Pattern 2024 Maths

The NDA exam pattern for the Maths consists of 120 questions for the total of 300 marks. Given below is the NDA Maths exam pattern:

Paper I	Mathematics
Total Marks	300 Marks
Number of Questions	120 Questions
Marks for every correct answer	+2.5
Marks deducted for every wrong answer	-0.3
Duration of Exam	2.5 Hours

NDA Exam Pattern 2024 General Ability Test



The General Ability Test consists of two papers which are English and GK. Below is the exam pattern of the GAT:

Paper II	GAT
Total Marks	600
Number of Questions	150
Number of Questions in English	50
Number of Questions in GK	100
Maximum Marks for English	200
Maximum Marks for GK	400
Marks for every correct answer	+4 (Both)
Marks for every incorrect answer	-1.33 (Both)
Duration of Exam	2.5 Hours

NDA Pattern 2024 For SSB Interview

All the candidates who will clear the NDA written exam will move to the next round of selection process which is an SSB Interview. The NDA SSB Interview is given below:

Stage Tests

-Stage 1

Screening Test (Verbal and non-verbal tests), PPDT

-Stage 2

Psychological Test, Thematic Apperception Test (TAT), Word Association Test (WAT), Situation Reaction Test (SRT), Self Description Test (SD), Group Testing Officers Test (GTO), GD, GPE, PG, TH, GT, IoT, Command Task, Snake race/Group Obstacle Race, Individual lecture, FGT



-Personal Interview & Conference

NDA Syllabus 2024

Understanding the NDA Syllabus 2024 is important for candidates aiming to excel in the upcoming NDA Exam. The exam comprises two main sections: General Awareness and Mathematics. Although the NDA Exam for the current year has concluded, aspiring candidates need to familiarize themselves with the revised NDA Syllabus 2024 to prepare effectively for the next examination cycle.

NDA Syllabus 2024 of Mathematics (300 Marks)

The mathematics syllabus covers various topics from algebra, trigonometry, calculus, and analytical geometry. It aims to evaluate candidates understanding of mathematical concepts, their ability to apply them to solve problems, and their speed and accuracy in calculations. Let us look at some most important topics for NDA Syllabus 2024 for Maths-

Subject

Topics

Algebra

Concept of sets
Operations on sets
Venn diagrams
De Morgan laws.
Cartesian product
Relation
Equivalence relation.



Representation of real numbers

Complex numbers

Binary system

Arithmetic, geometric, and harmonic progressions

Quadratic equations

Linear inequalities

Permutations and combinations

Binomial theorem

Logarithms

Matrices and determinants

Trigonometry

Angles and measures

Trigonometric ratios

Trigonometric identities

Sum and difference formulae

Multiple and sub-multiple angles

Inverse trigonometric functions

Height and distance problems

Properties of triangles

Analytical Geometry

Rectangular Cartesian coordinate system

Distance formula.



Equation of a line

Angle between two lines.

Distance of a point from a line

Equation of a circle

Standard forms of conic sections

Point in a three-dimensional space.

Equation of a plane

Angle between two lines or planes.

Equation of a sphere

Differential Calculus

Functions and their graphs

Composite functions

Limits and continuity

Derivatives and their applications

Increasing and decreasing functions

Maxima and minima

Concept of a real-valued function—domain, range, and graph of a function.

Composite functions, one-to-one, onto, and inverse functions.

The 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

Integration and its techniques

Definite integrals and their applications

Differential equations

Order and degree of a differential equation.

General and particular solutions

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.

A general and particular solution of differential equations, solution of the 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 vectors

Addition and scalar multiplication of vectors

Scalar and vector products

Work done and moments of force.

Geometrical problems involving vectors.



Statistics and Probability

Classification of data
Frequency distribution
Graphical representation
Measures of central tendency and dispersion
Correlation and regression
Probability concepts
Random experiments and events
Probability theorems
Random variables
Binomial distribution

The Topic wise number of questions from the Maths section is given in the table below:

Topic	Questions Range
Probability	10
Complex Number	10-15
Calculus	20-25
Quadratic Equation	20-25
Matrices and Determinant	30
Trigonometry	30



Part II- General Ability Test

The General Ability Test consists of two papers: English and General Knowledge. The English paper carries a weightage of 200 Marks, while the General Knowledge paper has a weightage of 400 Marks.

NDA Syllabus 2024 English (Maximum Marks: 200)

The English language question paper is crafted to assess candidates' comprehension and effective use of English. The syllabus consists of Grammar, Vocabulary, Comprehension, and Cohesion in extended text.

Topic	No. of Questions	No. of Marks
Spotting Errors	5	20
Comprehension	6	24
Sentence Improvement	10	40
Ordering of Words in a Sentence	9	36
Selecting Words	10	40
Synonyms	5	20
Antonyms	5	20
Total	50	200

NDA Syllabus 2024 English

The NDA syllabus 2024 for English consists of various topics which are given below-

- Grammar & usage
- Comprehension & cohesion
- Spotting of errors
- Para Jumbling
- Fill in the blanks.
- Synonyms & Antonyms



- Vocabulary
- Cloze Test
- Idioms & Proverbs
- Completion of Sentence & Para
- Sentence Correction & Improvement

NDA Syllabus 2024 General Knowledge (Maximum Marks: 400)

This test will consist of 6 sections. Candidates will have to prepare the basics of all these sections for the UPSC NDA 2024 Exam. The sections are as follows:

NDA Syllabus 2024 GAT

- Physics
- Chemistry
- General Science
- History
- Geography
- Current Affairs

The question paper on General Knowledge will broadly cover the subjects:

- Physics
- Chemistry
- General Science
- Social Studies
- Geography
- Current Events.

Topic	No. of Questions	No. of Marks
Physics	23	92
Chemistry	16	64
General Science	11	44
History & Freedom Movement	16	64
Current Affairs	17	68
Geography	17	68

**Total****100****400****Section 'A' (Physics)**

The questions in the physics section are asked from the topics like Mass, Weight, Volume, Pressure, Newton's laws of Motion etc. Given below is the complete list of topics from which the questions are been asked in the NDA examination. -

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

The Chemistry segment of the NDA examination consists of questions from the topics like Elements, Mixtures and Compounds, Acids, Bases and Salts, Properties of matter etc. Consider the table given below to get the glimpse over the topics from which the questions are been asked.

- 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 Carbon dioxide, 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)

The General science is the category that consists of the general topics like Growth and Reproduction, basis of life, questions on food and balanced diet etc. All the topics from the General science section in the NDA syllabus are given below:

- Difference between the living and non-living.
- Basis of Life—Cells, Protoplasm’s 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.)

The Questions in these sections are majorly asked from History like Various movements, Indian constitution, Various plans in India, various revolutions etc. Given below is the list of the complete topics:

- 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 question in this section is made from the topics like Origin of earth, latitude and longitudes, rocks, wind, cyclones etc. Check the list of topics given below to get the better understanding about this section.

- The Earth, its shape and size.
- Latitudes 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 Climates, 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 recent years. Current important world events. Prominent personalities—both Indian and International including those connected with cultural activities and sports.

Weightages



Section/Subject	Percentage of Marks
Section A: Physics	25%
Section B: Chemistry	15%
Section C: General Science	10%
Section D: History/Freedom Movements	20%
Section E: Geography	20%
Section F: Current Events	10%

Paper 3: Intelligence and Personality Test

The SSB Round consists of two stages:

Subject	Important Topics
Stage I	Officer Intelligence Rating (OIR) tests Picture Perception Description Test (PP&DT)
Stage II	Interview Group Testing Officer Tasks Psychology Tests Conference

NDA Syllabus 2024 for OIR

The NDA Syllabus 2024 for the OIR Test is given below:

Verbal Test

Completion of Series

Non-Verbal Test

Figures



Analogies
Problems

Shorter and Taller

Blood Relation

Locating Hidden Figure

Logical Venn Diagram

Figure Matrix

Odd one out

Paper Cutting

Jumbled Words

Problem on Dice

Classification of Data

Problem on Ranks

Coding-Decoding

Problem on Cubes

One-word Substitution

Interchanging 2 signs.

Identification of Letters

Visualizing Patterns

Spatial Ability

Reconstruction of Test

How to Prepare for NDA Syllabus 2024?

Preparing for the NDA exam requires effective strategies to cover the NDA syllabus efficiently. Here are some tips to help:

Learn about Exam Pattern: Familiarize yourself with the most recent NDA exam pattern, including the section-wise distribution of marks, to organize your study plan effectively.

Have Proper Knowledge of the NDA Syllabus: Gain a comprehensive understanding of the UPSC NDA syllabus by referring to the latest notification and updates provided.

Solve Past Year Papers: Access and review NDA previous year question papers to identify important topics and understand the question patterns.

Solve Mock Tests: Enhance your time management abilities by practicing NDA mock tests, which replicate real exam conditions.

Proper Revision: Establish a revision schedule to reinforce your understanding of crucial concepts before the exam, ensuring thorough preparation.



Important Topics in NDA Syllabus 2024

If you are short on time for preparation –

Prioritize the important topics of the NDA syllabus 2024. Here is a list of important topics section-wise:

- **English:** Reading Comprehension, Synonyms-Antonyms, Spotting errors, Vocabulary, Idioms and Phrases
- **11th-12th NCERT SYLLABUS/NDA Maths Syllabus:** Matrices and Determinants, Sets, Venn Diagram, Trigonometry, 2D and 3D Geometry, Differential calculus
- **6th-12th NCERT/General Knowledge:** History, Chemistry, Current Affairs, Art and Culture, Physics, Basic Science

Study Material -

- **Defence Wallah-**
[CLICK HERE](#)
- **Arpit Chaudhary-**
[CLICK HERE](#)
- **Kartik Chaudhary-**
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Past Year Question Papers [PYQ]-

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