



# NDA Syllabus Guide

Mathematics, General Ability Test and SSB overview | Ekadyu student handout

Use this for	First screening, weekly study planning and student revision
Written exam	Mathematics: 300 marks + General Ability Test: 600 marks
SSB	Interview/personality assessment: 900 marks after written qualification
Important	Always check the latest UPSC notification before applying

## Hindi note / हर्दी नोट

यह PDF तैयारी में मदद के लए है। आवेदन से पहले latest UPSC notification में age, education, exam pattern और syllabus जरूर मलए।

## Exam Structure

Paper	Questions	Marks	Duration	Notes
Mathematics	120	300	2.5 hours	Correct answer: 2.5 marks. Negative marking: about -0.83.
General Ability Test	150	600	2.5 hours	Correct answer: 4 marks. Negative marking: about -1.33.
SSB Interview	-	900	As scheduled	Conducted after written qualification.

## Mathematics Syllabus

Unit	Topics
Algebra	Sets, Venn diagrams, De Morgan's laws, relations, real/complex numbers, binary number system, progressions, quadratic equations, linear inequations, permutation and combination, binomial theorem, logarithms.
Matrices and Determinants	Types and operations on matrices, determinants, adjoint and inverse, solution of linear equations, Cramer's Rule and matrix method.
Trigonometry	Angles in degrees/radians, ratios, identities, sum and difference formulae, multiple and sub-multiple angles, inverse trigonometric functions, heights and distances, properties of triangles.
Analytical Geometry	2D Cartesian system, lines, circles, conics, 3D points, direction cosines/ratios, planes, lines in space, angles, sphere.

## Mathematics Syllabus Continued

Unit	Topics
Differential Calculus	Functions, domain/range, graphs, composite and inverse functions, limits, continuity, derivative, chain rule, second-order derivatives, increasing/decreasing functions, maxima and minima.
Integral Calculus and Differential Equations	Integration as inverse of differentiation, substitution, by parts, standard integrals, definite integrals, area under curves, order/degree, formation and solution of differential equations, growth and decay.
Vector Algebra	Vectors in 2D/3D, magnitude, direction, unit/null vectors, addition, scalar multiplication, dot product, cross product and applications.
Statistics and Probability	Data classification, frequency/cumulative frequency, histogram, pie chart, frequency polygon, mean, median, mode, variance, standard deviation, correlation, regression, events, probability, conditional probability, Bayes' theorem, random variable, binomial distribution.

### Student Maths Plan

- Build formula sheets for algebra, trigonometry, calculus and coordinate geometry.
- Practice timed arithmetic and algebra daily before moving to full paper mocks.
- Maintain a mistake notebook with concept gap, speed issue and calculation error tags.

# General Ability Test

## Part A: English - 200 marks

- Grammar, vocabulary, usage and comprehension.
- Spotting errors, selecting words, synonyms and antonyms.
- Sentence improvement and ordering of words in a sentence.

## Part B: General Knowledge - 400 marks

Area	Topics
Physics	Matter, mass, weight, density, pressure, motion, Newton's laws, equilibrium, gravitation, work, power, energy, heat, sound, light, electricity, magnets and common devices.
Chemistry	Physical/chemical changes, elements, mixtures, compounds, symbols, formulae, equations, air, water, gases, oxidation/reduction, acids, bases, salts, carbon, fertilizers, materials and atomic basics.
General Science	Living/non-living things, cells, tissues, growth, reproduction, human body, epidemics, nutrition, solar system and scientists.

## GAT General Knowledge Continued

Area	Topics
History, Freedom Movement, Polity and Society	Broad survey of Indian history, culture, civilisation, freedom movement, Constitution, administration, Panchayati Raj, national integration, welfare state, Gandhi, world events and ideologies.
Geography	Earth, latitude/longitude, time, International Date Line, motions of Earth, rocks, weathering, earthquakes, volcanoes, ocean currents, atmosphere, climate, India geography, resources, agriculture, industry, ports and trade routes.
Current Events	Important Indian and world events, prominent Indian/international personalities, cultural personalities and sports personalities.

## Six-Week Student Revision Plan

Week	Study target	Practice target
1	Baseline NDA paper check; identify weak maths and GAT areas.	One diagnostic paper and document checklist.
2	Algebra, trigonometry and English grammar.	Daily sectional practice and vocabulary list.
3	Coordinate geometry, matrices and physics basics.	Two timed maths sets and one GAT set.
4	Calculus, vectors, chemistry and general science.	One mixed mock with error review.
5	History, polity, geography and current events.	Full GAT simulation under time.
6	Full written exam simulation and SSB awareness.	Full NDA mock, revision of error notebook and physical routine check.

## Official Source Note

Source	Official reference / note
UPSC	Use the latest NDA & NA Examination notification and syllabus on upsc.gov.in before applying.
Ekadyu note	This guide is for first screening, weekly planning and student revision.